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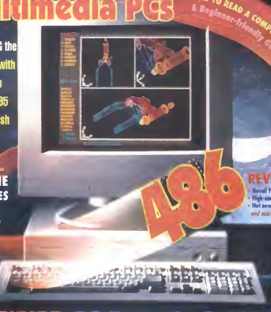

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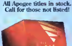

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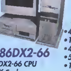

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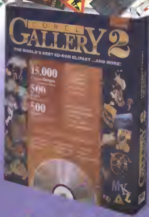

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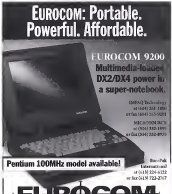
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Pornography or Not?

As some of you have noticed *The Computer Paper* has opted to not accept ads relating to pornography and "Adult Software". Pornography is a booming industry on computers. Much has been made in the news about "cyberporn" — pornographic computer images on BBS's and the Internet. There is also a robust industry selling videos and stills on CD-ROM and a growing trend towards interactive pornographic CD-ROM titles.

Our sister publication *Toronto Computes!* has a more lenient approach to this and successfully sells ads in this area. The rationale for leaving the ads in that publication has to do with not wanting to mess with the character of the publication as much as anything. We purchased it last year and have tried as much as possible to allow it to evolve on its own direction and editorial strengths.

Our policy states "The publisher reserves the right to refuse ads of a sexual or violent nature or ads which may be deemed to perpetrate sexual or racial stereotypes. Specifically ads referring to Adult Software or X-rated software will be refused. The publisher reserves the right to be the final judge of what is considered appropriate."

From the Editor

This month as often happens, we had a request from one of our salespeople to make a ruling on an ad for a title that fell into the grey area. Despite appearances, our goal here was not to set ourselves up as the morality police. We value sex and think it is a wonderful thing. We wonder more about the rapid growth of pornography in our society. While accepting there is a place for it, we wonder about the need for it to be everywhere and "in-your face" all the time. The goal with this policy was designed to 1) minimize our risk as a free publication to the whims of censorship, 2) maintain a professional environment for our corporate advertisers and 3) make a statement about the overexposure of our society to pornography.

Regarding Sex

The ad in question was one for a 1/6th page sized ad for a CD-ROM entitled "Regarding Sex." Despite a bit of a racy description for such features as "Cyberbods" and "Passionate Postcards", the title seems to be an attempt to use the medium of CD-ROM as an educational tool to explain sex. There are no racy GIF files to be found on it. Don't bother ordering it if juicy bits are what you are after. We decided to let the ad run because it wasn't in any sense of the word explotive. It was educational. No doubt it will cause controversy with the advertisers who wonder why we won't let them run their stuff.

The Computer Paper— Banned in Chilliwack?

The censorship issue is a serious issue. Recently in both BC and Ontario gay publications *Xtra West* and *Xtra* were taken to task for the graphic nature of their ad content. One suspects these rulings had more to do with homophobia than a desire to minimize pornography, but nonetheless, *The Computer Paper* was given the boot along with a range of other free publications in the dispute in BC. The Library board in question subsequently pulled back and has allowed all the free publications back on their shelves. It continues to be a sensitive issue and free distribution publications such as ours are aware that we are distributed at the public's continued good will.

US Computer Magazines Standardize on Text-Only Ads

Many of the more professional computer publications in the US have recently taken steps to ensure a professional environment for all their advertisers in regards to adult software ads. *PC Magazine* has recently tightened their stand on adult software ads by limiting them to text only advertisements. In the past in *PC Magazine* and in many other computer publications, some of the advertisements for Adult Software were starting to resemble the phone sex ads in many of the big city dailies complete with scantily clad young ladies inviting the reader to order their products.

Reader Response

Should *TCP* allow "Adult Software" ads? Send us an e-mail or fax us a letter to the nearest office to you. Yes means Yes, I think that you should allow "Adult Software" ads. No means No, I think you should keep up the current policy.

The first word in your fax or in the header of your e-mail should be either Yes or No for ease of counting. We are interested in your rationale for either. We will publish the results of this informal reader survey in the next issue and share the best of the letters as well.

We do want to know what you think on this question.

The Computer Paper will be at the 4th annual Home Office Show at The Metro Toronto Convention Center March 29 & 30. Be sure to drop by our booth and say hello.

Enjoy the issue,

Douglas Alder
Publisher/Editor
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Reader Response Survey

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Remember to put Yes or No in the header of the message.

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OS Showdown Sparks Shootouts

Showdown at the OS Corral Part 1 (TCP March '95) — and our OS/2 coverage (or perceived lack thereof) generated more mail than any other topic we've covered in recent months. Some of it was positive and complimentary, some of it was helpful and advice-filled and some of it was red hot and flaming.

Of our inclusion of the beta copy of Windows 95, Barrie Barrington wrote: "How is it possible to compare three products when one of them is not even officially in existence?"

Monty Wong wrote: "I am a OS/2 user and I have installed the operating system for my friends several times over using different computer peripherals and not once did I ever come across any problems. To say 'let the dealer install it' is an outright embarrassment, just how far do you have to bash OS/2 ????"

Daniel Nagy raged: "Your anti-OS/2 bias has been becoming clearer for some months now.

You are more than willing to fill the pages of *The Computer Paper* with reviews of almost any kind of junk Windows software. I guess that is because there is so much of it! It is just so much easier for you isn't it? A computer paper for the masses; a McPaper, tasteless with no nutritive value."

Following is a sample of other letters we received.

Liked OS Showdown

I just picked up your March 95 edition and had a good chuckle near the end of the *Showdown at the OS Corral* article. Firstly let me say that I was happy to see an end-user approach to your review. I thought your position of reviewing the three operating systems that the average person was likely to be using in the next year was a refreshing change from other reviews that I have seen.

As a computing professional I touch DOS, Windows, OS/2, Netware and System 7.x on a DAILY basis. The department I work in is responsible for keeping 200+ PCs and 180+ Macs up and running smoothly. It was with a grin on my face that I showed my co-workers the last couple paragraphs of your article where you compare the frequency of crashes among operating systems. I couldn't agree more about System 7.x — it crashes often, it crashes messy and I dislike it only slightly less than Windoze.

P.S. A little correction to your OS Showdown article. From what I have learned from Apple dealers and from reading comp.sys.mac.system, Apple hasn't abandoned the System Enabler scheme in System 7.5. All existing enablers were rolled into System 7.5, but any new model of Mac that comes out may or may not need an enabler. And since Apple seems to enjoy changing its model lineup every two months, it won't take long until we have the same problem with enablers that we had with System 7.1 (joy!).

Darren Freeman, via Internet

***GB replies:** You are correct about the System Enablers. At press time, we had not seen any machines that required a System 7.5 System Enabler, but the recently released Power Macintosh 8100/100 requires an enabler under 7.5; we suspect it's not the last.*

Some OS/2 Advice

I have just read Part 1 of your *Showdown At The OS Corral*, and it certainly is interesting reading. I look forward to the next installment. However I did want to add a few notes regarding OS/2 and its comparison to Windows 95 and Mac OS System 7.5.

The Adventure Begins: I guess your installation mileage may vary. Myself I had no problem installing OS/2 from a Mitsumi CD-ROM, and configuring it for my system. Although the install does default to a 16 color VGA video mode after auto-detecting the video card, this is to guarantee that the install can complete successfully if the user or the install program accidentally identified the wrong video card. This default mode is easily changed afterwards with the Selective Install program which will offer the full range of resolutions available.

Continued on page 9

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Mailbox

Continued from page 7

If Trouble Happens OS/2 offers two options on boot up if there are problems

Pressing ALT F1 during the initial part of the boot process brings up a text screen which will allow a variety of different boot options including text only VGA only, or boot from a previously saved desktop configuration The available options are also easily customizable with a text editor This is explained in the manual

Pressing ALT-F2 during boot will cause OS/2 to display which drivers it is loading as it boots just like pressing ESC does for Windows 95

Window Management. A simple click with both mouse buttons simultaneously on the OS/2 desktop will bring up a list of all the applications running including the minimized apps, allowing you to enlarge them, close them or tile or cascade them It is quick, neat and although it is not in your face like the Windows 95 Task Bar it does not consume valuable screen real estate Of course if you double click on the original program object in OS/2 it will call up the minimized application if it is already running.

I hope these tips will be useful to you and your readers Keep up the good work.

Peter MacDougall via Internet

Shoots Down Showdown

Thank you for publishing your sidebar on realistic minimums for the various operating systems If you hadn t told me I would never have known that OS/2 requires "at least 12MB recommended" and a "486/66 or better CPU" All along I thought I was happy (hmmm make that HAPPY) running Word, WordPerfect V8 doing background downloads (and ok playing the occasional game) on my 8MB 386/33 Now thanks to you I find I am very unhappy — with you

There s no sense belaboring the point that your lead off dealt with a vaporware product that was announced in the fall of 1992 as scheduled for delivery in summer 1993

There s also no sense in questioning your comment about Warp being a slow load (most of us start our days by turning on a PC and getting a cup of coffee — and waiting for the coffee machine not the computing machine) And I won t argue about the response times versus Win3 11 or Win95 (but hey you really should have pointed out that Windows is slower than DOS because it supports additional functionality and the same is true for Warp because it supports functionality that Win3 11 users can t even dream of) And I won t even argue that "writing several hundred lines of REXX code isn t our idea of fun" because it most certainly is NOT my idea of fun either — but when I need to use it REXX is there (and you get functionality that DOS can t even begin to approach without significant investment in add-on products)

By the way lest you get the wrong impression I m not using the Warp IAK but dialing in to my office from home and using the office Internet connection.

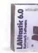
John Beamish via Internet

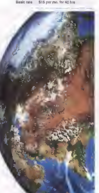
GB and DT reply *Glad to hear that you are happy with the performance of Warp on a 386 We tried it on a 40 MHz 486 a 486DX2 66 and a Pentium 60 all with 8MB, a 50 MHz DX2 with 24 MB, a 33 MHz 486 with 16 MB and a 50 MHz 8LC (IBM Blue Lightning Chip) with 12 MB We d agree that you don't need a 486DX 66 as a minimum, as we said in Part 1 but we have observed that Warp loves RAM the more the better For example, Warp seems more responsive on the 50 MHz Blue Lightening machine (which Norton speed tests show to be slightly faster than a DX-33) with 12 MB than a 486DX2-66 with 8MB* ❑

We apologize to
TCN Systems Group Inc.

for inadvertently leaving them off
last month's Internet providers list.

Phone	905-508-4915
Start-up Kit	Mac Win DOS OS/2 (includes a variety of Internet software)
Setup cost.	$20
Basic rate	$15 per mo. for 40 hrs





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news*bytes*

Data From A Phone Call • Venturian Software, a subsidiary of Venturian Corporation, has announced it has become the first North American distributor of MultiCall, a Magic Software-based interactive voice response (IVR) and computer telephone integration (CTI) application that lets anyone with a telephone obtain information from a database.

Instant Translation Claimed • Osaka-based translation software developer Kodensha has released software which the company claims "instantly" translates English to Japanese.

Pictures Via Cellular Modem • Mitsubishi Electric Engineering has released the Dg-30aa, a modem for interactively transmitting NTSC (North American Television Standards Committee) format still color images using an analog cellular phone.

Musings On Canada's Info Highway • It may turn out that Canada cannot build an Internet backbone that is competitive with services in the United States, but it is not time to give up on the idea, according to Dr. Andrew Bjerring, president and chief executive of the Canadian Network for the Advancement of Research, Industry and Education (CANARIE) at the organization's annual meeting.

CANARIE is the group responsible for running the current Canadian Internet backbone, known as CA*net. CA*net is not as advanced as its counterpart in the United States. However, Bjerring told the annual conference of the Information Technology Association of Canada (ITAC) that he believes the effort should continue. CA*net may develop its own strengths, he said.

David Johnston, chair of the Canadian government's Information Highway Advisory Council, said ensuring that competitors can enter the new telecommunications markets is important. He also said new communications technologies can help improve health care and that Canada should make an effort to give its own culture a presence on the "information highway".

Bjerring emphasized a need to educate the general public about information technology in general, to prevent as much as possible the widening of the gulf that already exists between low skilled and highly skilled jobs.

Kodak Broadnew Digital Camera Line • Eastman Kodak Co. says it will introduce a new high-performance megapixel digital camera in April that is based on Canon's EOS-1n 35 millimeter (mm) camera. The announcement was just one of several made by Kodak at this year's Photo Marketing Association (PMA) trade show being held in Las Vegas recently.

The new digital system is dubbed the EOSDCS 5 and shares many of the characteristics of the Kodak DCS (Digital Camera System) 420. These include: the ability to capture up to 10 images in just over four seconds, compatibility with all Canon EF lenses and EOS accessories, a 1.5 megapixel CCD (Charge Coupled Device) sensor, removable storage in the form of both hard disks and flash memory cards, a battery pack capable of powering up to 1,000 images per charge, and film speed equivalents from 100 to 400 in color and 200 to 800 in black and white.

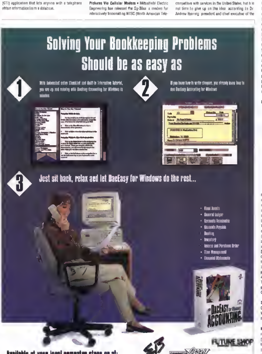
The EOSDCS 5 is expected to have a suggested list price of about US$11,995.

Contact: Eastman Kodak, 800 235-6325

Symantec Intros Act! Mobile Link Add-on • Symantec Corp. has announced Act! Mobile Link 2.0 for Windows, an add-on product for the Act! contact manager. Contact: Symantec, 800-667-8661

Marketing Number One Business Use Of Internet • A recent Robert Half International survey of 1,000 CFOs (chief financial officers) from companies with more than 20 employees found marketing to be the number one business use of the Internet. Following 10 percentage points behind, the category of customer support and communications was the second strongest area of projected use.

Continued on page 12



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PVT 486DX/2-66 Cyrix	$1716	$1816	$1880	$2108	$2298
PVT 486DX/2-66	$1824	$1927	$1988	$2215	$2407
PVT/M 486DX/2-66		$2251	$2312	$2540	$2731
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PVT/M 486DX4-100		$2389	$2450	$2679	$2868

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Notebook Features	PVT	PVT/Multimedia	PENTIUM
Intel CPU Type & Landmark Speed (Genuine CPU upgradable Intel not Cyrix)	SX-33, 110 MHz DX 33 110 MHz DX/2-66 220 MHz	SX 33 110 MHz DX 33 110 MHz DX/2-66 220 MHz DX4 75 300 MHz DX4/100 330 MHz	Pentium 60 347 MHz Pentium 66 384 MHz
Unique CPU Upgradability	from SX-33 to DX2/66	from SX 33 to DX4/100	from DX 60 to DX-66
Base Max RAM	4/20 mb	4/36 mb	8/40 mb
Local Bus Video RAM	512k	1 mb	1 mb
Max HDD Capacity	520 mb	520 mb	520 mb
Internal Floppy	1.44 hi density	1.44 hi density	1.44 hi density
Screen Size	9.5"	9.5"	10.5"
Max Ext Resolution	1024x768 16clrs	1024x768 256clrs	1024x768 256clrs
Int Screen Resolution	640 x 480	640 x 480	640 x 480
Ext SVGA Monitor	Simultaneous	Simultaneous	Simultaneous
1 serial & 1 parallel ext video 2 PCMCIA slots	Y	Y	Y
Battery Type	NiCad	NiMH	NiMH
Large Built-in Trackball	17 mm	19 mm	26 mm
Docking Chassis	N	Y	Y
Detachable HDD	2 step process	standard	standard
VESA Local Bus HDD	Y	Y	Y
Built in sound chip	N	Y	Y
Dimensions (inches)	11 x 9.0 x 1.9	11.3 x 9 x 2	11.3 x 10 x 2.4
Weight (incl battery)	6.2 lbs	6.2 lbs	7.9 lbs
Battery Life 2-4 hrs	Y	Y	Y
SVGA PCMCIA Drivers	included	included	included
Carry Case AC adapter	included	included	included

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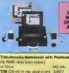

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PVT/M iDX-60 (8 mb dual scan)	$3667	$3854	$4085
PVT/M iDX-66 (8 mb dual scan)	$3685	$3813	$4103
PVT/M iDX 90 (8 mb dual scan)	$4899	$5127	$5317

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ATI Mach32D VLB 1 mb (OEM)	$68
GX Blitz card VLB 2 mb VRAM (40% faster than ATI mach 64)	$106
ATI Mach64 VLB 2 mb DRAM (OEM)	$187
Upgrade 1 mb PCI Video to	**Add**
ATI Mach32 1 mb DRAM PCI	$39
S3 864 64-bit 1 mb DRAM PCI	$58
ATI Mach32 2 mb DRAM PCI	$112
ATI Mach64 2 mb DRAM PCI	$162
ATI Mach64 2 mb VRAM PCI	$292
Upgrade.	**Add**
14" to 15" NI UVGA monitor	$145
14" to 17" NI UVGA monitor	$475

OTHER UPGRADES

2x speed CD-ROM to 4xspeed	$124
Colorado DJ20 250 mb tape backup	$230
Canon BJ-100 bubble jet printer	$299
Canon BJC-4000 bubble jet printer	$486
Creative Labs Digital Schoolhouse (SoundBlaster 16 sound card 20 CD titles double-speed CD-ROM 2 speakers)	$389

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- Deluxe 101-key spillproof keyboard & 3-button 400 dpi mouse

Model (Intel CPU unless noted)		Lease to OWN	Landmark
486DX/2-66 VLB (Cyrix™)	$1203	$48/mth	220 MHz
486DX/2-66, VLB	$1301	$52/mth	220 MHz
486 DX/2-80, VLB (AMD™)	$1252	$50/mth	267 MHz
486DX/4-100 VLB (AMD™)	$1379	$55/mth	347 MHz
486DX/4 100, VLB	$1458	$58/mth	347 MHz
iDX-60 w/Pentium™ CPU, PCI	$1610	$65/mth	364 MHz
iDX-66 w/Pentium™ CPU PCI	$1638	$66/mth	382 MHz
iDX-90 w/Pentium™ CPU PCI	$2061	$83/mth	>400 MHz

Upgrade 486 VLB with 128k cache to PCI with 256k cache	$96
Upgrade 4 to 8 mb / 16 mb RAM on 486 system	$198/427
Upgrade 4 to 8 mb / 16 mb RAM on Pentium system	$212/494
Upgrade 420 mb HDD to 540/720 mb HDD	$33/$106
Upgrade 420 mb HDD to 1 GB IDE/ 1 GB SCSI HDD	$307/$551
Upgrade minitower to enhanced m dtower case w/7 drive bays 250 watt	$39
Upgrade to fast I/O (2 x 16550 serial 1 EPP 1 game port)	$35
MS-DOS 6 2 full package & disks (OEM)	$58
Windows 3 1 (OEM)/Win 3 11 (OEM) with workgroups	$72/$86

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With 486 CPU Standard Features Plus
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8 mb fast onboard RAM
540 mb hard disk drive
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DX/2-66 (Cyrix)	$1579	$63/mth
DX/2-66 (Intel)	$1677	$67/mth
DX/2-80 (AMD)	$1629	$65/mth
DX/4-100 (AMD)	$1755	$70/mth
DX/4-100 (Intel)	$1834	$73/mth
Upgrade to PCI Version		**add $95**

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DX/2-80 (AMD)	$1866	$75/mth
DX/4-100 (AMD)	$1993	$80/mth
DX/4 100 (Intel)	$2072	$83/mth
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15" NI .28 dp UVGA monitor
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Enhanced minitower case w/230 watt
Double speed CD-ROM
16-bit sound card, 2 speakers, 2 CD titles

DX/2-66 (Cyrix)	$2419	$87/mth
DX/2-66 (Intel)	$2513	$101/mth
DX/2-80 (AMD)	$2464	$99/mth
DX/4-100 (AMD)	$2591	$104/mth
DX/4-100 (Intel)	$2670	$107/mth

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540 mb HDD
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Pentium IDX-60	$2000	$80/mth
Pentium IDX-66	$2029	$81/mth
Pentium IDX 90	$2471	$99/mth

MULTIMEDIA PACKAGE WITH PENTIUM™ CPU
With Above Features Plus
Double speed CD-ROM
True 16-bit sound card
2 speakers and 2 CD titles
15" non interlaced .28 dp UVGA monitor

Pentium IDX-60	$2238	$90/mth
Pentium IDX-66	$2267	$91/mth
Pentium IDX-90	$2708	$108/mth

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Enhanced minitower case w/230 watt
Double speed CD-ROM
True 16-bit sound card
2 speakers and 2 CD titles

Pentium iDX-60	$3124	$125/mth
Pentium iDX-66	$3153	$126/mth
Pentium IDX-90	$3595	$144/mth

MONITOR UPGRADES

Upgrade	15" monitor to	
Mag DX15F	15", .28dp	$110
Sony FS15	15", .28dp	$279
Mag DX17F	17", .28dp	$655

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newsbytes

Continued from page 10

IBM Intros PC-DOS 7 • IBM has unveiled its latest release of the venerable DOS operating system with a new file compression feature and updated support for the Personal Computer Memory Card International Association (PCMCIA) standard built in.

US Offers Secret Spy Satellite Photos On Internet • The US government has begun releasing declassified spy satellite photos onto the Internet.

HP To Build Printer Supplies Factory In Ireland • Hewlett-Packard has announced plans to build a 300 000 square-foot manufacturing plant near Dublin Ireland to produce printer cartridges in support of HP s successful and growing inkjet-printer business in Europe. Investment details of the project have not been announced.

Speech Recognition Over Cellular • BBN Hark has unveiled Telephony Recognizer 3.0 – a 2,000-word Pentium or RS/6000 based speech recognition system for business phone applications plus a developer s kit and an option to let cellular and "traditional" phone users place a call just by speaking a name. Initially targeted at the telecommunications travel finance and online services markets the three new products also represent the first from Hark to be specifically aimed at use with phone systems in the commercial marketplace," Cutler told Newsbytes.
Contact: BBN Hark Systems Corp. 617-873-4000

Toshiba's New Notebook CD-ROM Drive • Toshiba America Information Systems Inc Disk Products Division has announced a new CD ROM drive designed to be integrated directly into a notebook computer platform.

Lotus Ships SmartSuite 3.1 • Lotus has started shipping the floppy disk version of Lotus SmartSuite 3.1 for Windows a point upgrade that adds Organizer 2.0 and updated features for "team computing" as Lotus prepares to move onward to Windows 95.
Contact: Lotus Canada 416-979-8000

Dead Sea Scrolls On CD-ROM • The Dead Sea Scrolls have come to life again after thousands of years this time not on parchment, but on a shiny CD-ROM disk. Called the Dead Sea Scrolls Revealed the interactive collection of photos and historical research data is being marketed by privately owned Logos Research Systems Inc. The program was developed by Pixel Multimedia Inc in Tel Aviv Israel and is authorized by the curators at the Israel Antiquities Authority.
The Dead Sea Scrolls Revealed contains about 70 minutes of video two hours of video interviews and historical footage 200 pages of text written by scroll scholars specifically for the CD-ROM based program, photos of all major scrolls and fragments, hundreds of historical photos and illustrations and English translations of the scrolls. The program also explores the origins of the early Christian church. Price is US$59.95.
Contact: Logos Research Systems tel 800-875-6467 or 360-679-6575

Netscape & Windows Most Popular In Internet Web Survey • Three recent surveys by operators of pages on the Internet s World Wide Web have named Netscape s Navigator as the software of choice for "net surfers" and Microsoft s Windows as the most popular operating platform.

CA's 4Home Plans OS/2 Titles • The 4Home Productions division of Computer Associates International Inc has announced plans to release five of its home computer software packages for IBM s OS/2 Warp operating system.
Starting this summer Computer Associates plans to release OS/2 versions of Simply Money Simply Tax, Simply Vacation Simply House and Parents Magazine s Simply Kids.
Contact: Computer Associates 4Home Productions, 606-679-6740

Aldus Pagemaker Gets New Name • Like the dodo bird the dinosaur and the Edsel Aldus Pagemaker is no more. But don't panic you can still buy the popular page layout program for Windows and Apple Computer s Macintosh platform but it has been rebranded and repackaged.
In what Adobe Systems Inc calls "a major milestone" following the merger with Aldus Corp the company has changed the name of the Pagemaker from Aldus Pagemaker to Adobe Pagemaker.

Compound Documents Online • Michael Kolowich, president and founder of AT&T s Interchange Online Network, predicts that 1996 will be the year of definition for a new generation of online services.
Kolowich was one of the keynote speakers at a conference in Seattle recently. Compound documents that allow linking to other sites will increase. Home pages and similar type documents that combine text, fonts

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graphics and links will be on the rise and play an important part in the development of the way publications magazines and newspapers present themselves online he explained

The compound document will be the foundation for the third generation of online services he said Because of the advantages of compound documents these type of documents will help define how online services will organize themselves internally and externally to other networks and information provider sites Kolewich said "There will be a move from information hierarchies to information networks"

Interface Is King In Online World • Andrew Anker president of HotWired the unruly online magazine predicted that online services leading toward quantity of information will be going in the wrong direction Anker spoke at an Online Advantage conference held in Seattle

Anker emphasized that the digital revolution is behind the computer in connections to others and the right direction for online services he said will be the quality of interaction

"The real killer app for interactive networking is people connecting to other people Users are no longer willing to accept being part of a static process indicating that TV and other such static devices are current competition but which lack the promise of inter connectivity and inter activity

Dual PCI Alphas From DEC • DEC has introduced the first Alpha workstation and server with dual PCI (Peripheral Component Interconnect) and EISA (Extended Industry Standard Architecture) buses, to be priced at under US$5 000 and under $10 000 respectively The company has also announced a new release of DEC OSF/1 its version of the Unix operating system for its Alpha computers Enhancements include asynchronous transfer mode (ATM) support and added tools for developers

Starfish Announces Sidekick • Starfish Software Philippe Kahn s startup company announced shipment of its first product a major upgrade of Sidekick for Windows Version 2 0 offers 101 new features based on extensive customer research

More than 10 years ago the first DOS version of Sidekick came out and officials at Starfish say more than 225 000 users have purchased Sidekick for Windows as a Borland product since its 1994 introduction

When he resigned from Borland Kahn was able to pick up two Borland products Sidekick for Windows and Dashboard as his charter programs for Starfish Software

Contact Starfish 408 438-0942

Prodigy To Offer Multimedia E-Mail • Prodigy Services Co the online service jointly owned by IBM and Sears Roebuck, has announced plans to offer a multimedia electronic-mail service this spring Prodigy is working with Seattle FilmWorks which will digitize 35 millimeter photographs so they can be sent online.

SLIP/PPP Internet Access In Japan • TWICS Japan s first public access Internet provider has announced a new service to debut April 3 that will offer users dial up SLIP/PPP access to the world wide Internet.

IBM Illumina Plan Hyperman Series • IBM Illumina Productions Inc and the CBS Television Network have announced plans for a CD-ROM science game and a Saturday morning cartoon series called "The Adventures of Hyperman" According to the companies the game and series will be part entertainment and part science education for children

Quarterdeck s Internet Doc Authoring Program • Quarterdeck Office Systems is working on the development of a World Wide Web (Web) authoring package for release during the second quarter of this year In addition the company plans to post a beta version of the program on the Internet

Company spokesman Nick Spencer told Newsbytes that the package WebAuthor for Word for Windows 6 0 will dovetail in with Microsoft s Word for Windows 6 0 and offer an HTML (HyperText Markup Language) authoring facility

Andyne Intros Pablo Decision-Support For Windows • Andyne Computing Ltd of Kingston ON has announced a version of its Pablo decision-support software for Microsoft Corp s Windows Pablo was already available for Apple Computer Inc s Macintosh. The Pablo software lets computer users explore large amounts of corporate data, without having to understand the structured query language (SQL) commonly used for extracting information from such databases, according to Andyne

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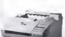

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TCP LABS REPORT

Value-packed 486 Systems

Why would anybody buy a 486 PC in the Age of the Pentium? Well, how about, "because it can do the job... and it's affordable"?

BY JEFF EVANS

Now that the Pentium Bug tempest in a teapot has passed and de-bugged Pentium chips are available, either in new PCs or as free upgrades to "bugged" units, it might seem that the Pentium is the only way to go if you're looking to buy a Windows PC.

Well, not so fast. What about that mainstay of the PC industry, the 486? Has the 486 gone the way of the Dodo bird and the 386? Not yet. Though millions of Pentium based PCs will be sold world wide in 1995, the majority of new PCs will still be based on the 486 rather than its faster cousin. There are two basic reasons for this. First, there is still a fairly stiff premium to buying a Pentium. Although there have been some very enticing specials on Pentium based systems, the Pentium chip by itself still costs over $400 more than a similar 486 chip. The second reason is that the 486 may provide as much processing power as many PC users actually need.

Ifs, Ands Or Budgets

Price still matters a lot, both for home computer users and for large scale corporate PC buyers. In terms of the home PC market, a recent study by the technology information firm IDC warned that the huge apparent surge in home PC purchases is distorted by a large number of households buying a second or upgrade computer for the family. For many households, according to IDC, a computer still remains an unaffordable luxury at current prices. IDC suggests that PCs may have to drop through the $500 barrier to become truly pervasive in the way that TVs and telephones are.

So that extra several hundred dollars for a Pentium processor is a significant factor to many PC buyers at the entry level, low end of the market. A related factor is how much power many PC users "really" need.

The Power To Brag Your Best

Many "power users" don't actually push the theoretical limits of their PC hardware on a regular basis, if at all. If all you are doing with a PC is some word processing, small scale spreadsheet and database work, and playing a few games, what do you "need" a Pentium system for? Mainly, in a lot of cases, for the psychological benefits you get from telling your pals what a great computer system you just got. For modest needs, and modest psyches, the 486 is still plenty of horsepower (although newer games are pushing even the 486 to its limits — Ed.)

Of course, if you really are using your PC in a fast paced commercial application, where competitiveness is key (or in truly CPU-intensive jobs such as Computer Aided Design, 3D animation, high resolution image manipulation, or desktop publishing), then the extra money for a Pentium processor is a small concern. However, for such seriously heavyweight applications, you are likely to need more than just a faster CPU. You are probably going to need lots of extra RAM, an extra fast, extra big hard drive, a big (17" to 21") monitor, high end graphics accelerator, and other features that will increase the cost of your system by thousands of dollars, not hundreds.

Along with the extra upfront costs, you can count on lots of extra hassles getting all the exotic bits and pieces working together properly. Two would-be computer animators I know spent $7,000 and $10,000 respectively to get "dream" Pentium based systems that after weeks of fiddling with, they still haven't been able to get to work properly. This is a long way from the $500 universal info appliance.

Very Vanilla PCs

An inexpensive, no frills 486 system, on the other hand, can be had for under $1,500 complete with monitor (above the magic $500 mark, but still, much more affordable). It can be assembled easily from components that have been proven to work well with each other, and can be upgraded easily with extra RAM, drives, and graphics cards if necessary. If based on a processor such as the Intel 486DX running at 66 MHz, such a "low end" PC can handle Windows and DOS applications at a respectable speed. 8 MB of RAM is a minimum for a current PC, whether you are running Windows 3.1x, Warp or the upcoming Windows 95. Extra RAM can generally be obtained for about $50 per MB, and is easily installed.

PC graphics have become very good and very cheap in the last couple of years, thanks to a generation of graphics cards that — at a very low cost — offer up to 16 million colors at regular VGA resolution, or 256 colors at high resolution.

Fortunately for PC users, the increasingly bloated size of major software titles has been matched by a corresponding drop in the cost of larger hard drives to store them on. The minimum size of hard drive you should currently consider is 250 MB. Many vendors now start with 340 or 540 MB hard drives as the standard offering. In short, a basic, cheap, no-frills system today has the kick of a "dream PC" from about 18 months ago, for less than half the mid-1993 price.

Alice Doesn't Live Here Anymore "We're Moving Out Of The 486 Market"

When we went to look for 486's for this survey, we decided to focus on the 486DX 66 MHz as the basis for the survey. To our surprise, we found that some name brand national vendors either no longer carry models with this processor, or do not wish to emphasize it. This would seem a bad sign, except that the main reason given was that "486 prices are so low, we can't make enough profit."

This is a reason for manufacturers to de-emphasize the 486, perhaps, but it's additional evidence to users that there is value to be had here. The retiring of major manufacturers from this end of the market also opens up opportunities for the dozens of small PC cloners across Canada.

The 486DX 66 MHz is by far the most popular 486 processor model; slower speeds of 486 processor are not being bought by desktop PC users, while faster versions, such as the 75 MHz or 100 MHz models, which generally cost somewhat more, run into price resistance. For comparison purposes, we tested two very similar models of IBM, a multimedia Aptiva 350 with a 486DX 66 MHz and a non-multimedia IBM PC 350 with a 486DX 100 MHz processor, and found a noticeable improvement in speed, though the 66 MHz model still had very good performance.

With Or Without Multimedia?

All the systems we looked at had the processing speed, RAM, and hard drive space needed to run current multimedia software quite handily. However, although full multimedia compatibility means adding a high quality sound card, stereo speakers and a CD-ROM drive to your system, a significant minority of new PC buyers still opt for a more bare bones system. However, in this review, all systems except the IBM PC with

➤

The MindFlight External CD-ROM Drive

For PC models that came without an internal CD-ROM drive, we found that in order to load the SAPCo SYSmark 95 benchmarking software, we needed to be able to attach a portable CD-ROM drive to the computer. A BC based company, MindFlight, loaned us an external CD-ROM drive that met our requirements quite well.

Loading the 150 MB SAPCo program was fairly slow – the data transmission via parallel port is a bit slower than the single speed CD-ROM drive – but as a solution for a user who needs to share one CD-ROM among several non-networked PCs, or someone who needs to take a CD-ROM drive to hook up to a computer at another location, this is a very useful product. ◻

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the 100 MHz processor are multimedia ready

The cost of pre installed multimedia bundles keeps coming down to the point where it is often a very good idea to go for the marginal extra cost of a multimedia ready PC rather than paying more money in the long run to add the multimedia components piece by piece

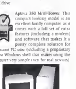
So whether you are looking for some extremely affordable options for an entry level PC or whether as a proud new Pentium owner you're just curious to see what the poor people are doing here's a look at the state of the 486 Enjoy

The Contenders

We looked at a range of national brand name models of 486's plus a couple of models from smaller companies We'd suggest that you also look at the many 486 offerings advertised in local newspapers, as well as *The Computer Paper Toronto Computes!* or *Vancouver Computes!* to see the range of what is available. Here's what we tested

Ambra 486 Desktop The Ambra model is very nicely finished, solid and easy to set up though the IBM labeled keyboard was a bit noisy with a metallic clicking sound when being used The model we tested came without a CD-ROM drive so we installed the test software via a MindFlight external CD-ROM drive

Aptiva 350 Mini-Tower This compact looking model is an excellent family computer as it comes with a full set of extra features (including a modem) and software that makes it a pretty complete solution for the home PC user (including a proprietary Aptiva Windows shell that makes using the computer very simple even for real novices)



This model has a CD ROM drive and speakers and some CD ROM titles The design is quite attractive and this computer is very well made The keyboard is very comfortable and (unlike the IBM keyboard on the Ambra) very quiet Performance is very good and the combination of integration and speed make it a very attractive product.

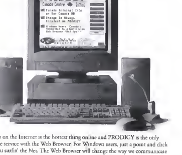
IBM PC 350 Desktop, 486DX4 100 MHz This unit came without a CD ROM drive Aside from the main CPU and the desktop form factor this unit is very similar to the Aptiva mini tower model However, performance is noticeably faster As with our January survey, where another 100 MHz based system also shone, this model performs well in terms of speed If you want to get the best possible performance without going up to Pentium prices a PC based on the 486 100 MHz processor is worth looking at.

AST Advantage Adventure 6066D Like the Aptiva, this computer comes with many extras including a modem and its own Windows overlay intended to make for easier use by the entire family, full multimedia capability with a CD ROM drive 16 bit sound card speakers and family oriented software Performance was only moderate according to our benchmarks but like all the 486's tested, this was still very adequate for standard Windows applications The 6066D is extremely pleasant and easy to use

Bondwell 486 Mini Tower A well made "budget" PC system the Bondwell gives decent performance with no problems or surprises It comes with a comfortable keyboard, a very decent Samtron monitor, and basic Windows 3.11 and utilities for the included CD ROM sound and graphics cards

Commodore CD/FX Tower This system compares well to the AST and Aptiva models in terms of quality construction and integration of components Performance is extremely good, and in conjunction with the impressive feature set and good price causes this model to rate very highly

Continued on page **18**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486 BUYERS' GUIDE

	Ambra Desktop 486	IBM Aptiva 350	IBM PC 350	AST Advantage Adventure 6066D	Bondwell 486/75 Multimedia	Commodore CD/FX 486	Comtex 486 Win Pack
Processor:	Intel 80486DX2, 66 MHz	Intel 80486DX2 66 MHz	Intel 80486 100 MHz	Cyrix 80486DX 66 MHz	Intel 80486DX 75 MHz	Intel 80486DX2 66 MHz	Cyrix 80486 80 MHz
Architecture	VESA	VESA	PCI	ISA	VESA	PCI	PCI
System Bios:	Phoenix Version 4.03	IBM Version 0.02	IBM Version 0.02	IBM Date	AMI	Award	Award
Plug & Play Support:	No	Yes	Yes	No	No	No	Yes
Hard Disk Drive:	420 MB	540 MB Quantum	540 MB Quantum	420 MB Quantum	420 MB Quantum	420 MB	540 WD
Video Card	ExpertBoard VL Bus VGA	Cirrus Logic Chipset	N/A	Cirrus CL GD5428 Chipset	VC-828 (Cirrus chipset)	VC 310 (Trident)	Diamond Stealth
Max. Video Resolution:	1280 x 1024 with 16 colors	1024 x 768 with 256 colors	1024 x 768 with 256 colors	1280 x 1024 with 16 colors	1280 x 1024 with 16 colors	1280 x 1024 with 16 colors	1280 x 1024 with 16 colors
Max. Video Colors	16 Million (640 x 480)	16 Million (640 x 480)	16 Million (640 x 480)	16 Million (640 x 480)	16 Million (640 x 480)	16 Million (320 x 200)	16 million (640 x 480)
Video Memory:	1024 KB	1024 KB	1024 KB	1024 KB	1024 KB	1024 KB	1024 KB
O/S DOS Version	Microsoft DOS 6.20	IBM Dos 6.30	IBM DOS 6.30	Microsoft DOS 6.22	Microsoft DOS 6.22	Microsoft DOS 6.22	Microsoft DOS 6.22
Windows Benchmarks:							
Word Processing	74.74	103.31	133	78.28	84.57	98.24	109.34
Spreadsheet	86.02	124.28	157.66	98.47	102.16	131.07	121.09
Database	70.33	93.52	108.83	71.66	67.35	70.91	185.58
Desktop Graphics	111.28	135.51	185.71	181.75	120.74	164.56	128.72
Desktop Presentation	76.64	86.61	133.71	84.55	66.49	96.32	114.17
Desktop Publishing	77.04	102.82	131.92	80.51	82.84	98.37	112.27
SYSMARK	82.12	106.51	148.32	83.38	89.39	109.21	114.78
Extras.							
	Quicken WordPerfect Works	9600 Modem, CD-ROM pack		14.4K Modem PhotoWorks CD-ROM pack telecom S/W	Microsoft CD ROM pack (Encarta etc.)	14.4K Modem, CD ROM pack	Microsoft CD-ROM pack (Encarta 95 etc.)
Contact	1-800-465-7999	1-800-465-7999	1-800-465-7999	(905) 507 3278	(905) 475-8822	(905) 940-1133	(905) 273 8081
Suggested Retail Price	$2099	$2859	$3989	$2193	$2170	$2199	$1999
Monitor	14" incl	14" incl	15" incl	extra cost	14" incl	extra cost	extra cost

*Prices are for a typical end user configuration: a desktop PC system with hard drive, 8MB of RAM, multimedia kit (CD-ROM drive, sound card, speakers), keyboard, mouse and MS Windows. Monitor not included except where noted. Extra features are noted in the table.

Prices are manufacturers' suggested retail prices (SRP) as of March 10 1995; check with your local dealer or ads in *The Computer Paper* and other publications for actual "street pricing."

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486 BUYERS' GUIDE

	DataTrain DPC 460	Express Micro Desktop	HITS/Dalera Mini-Tower	Pino PC	Seanix AS/9000	Sinus/Performax (PCI)	Sinus/Performax (VESA)
Processor	Intel 80486DX2 66 MHz	Intel 80486 DX2 66 MHz	Cyrix 80486DX2 66 MHz	80486DX2 66 MHz	Intel 80486DX2 66 MHz	Intel 80486DX2 66 MHz	Intel 80486DX2 66 MHz
Architecture	VESA	VESA	VESA	VESA	VESA	PCI	VESA
System Bios	Phoenix Version 1 00	AMI	AMI	AMI	Award	Award	Award
Plug & Play Support	No	No	No	No	No	No	No
Hard Disk Drive	420 MB	420 MB Quantum	420 MB Samsung	540 MB WDC	540 MB WDC	420 MB WDC	540 MB USAA
Video Card	Cirrus CL-GD5428	VESA Cirrus Logic GD5428	GUI VL-46	WinJet VL Premier	Trident	ATI MACH64	Trident (E3)
Max. Video Resolution	1280 x 1024 with 16 colors	1280 x 1024 with 16 colors	1280 x 1024 with 16 colors	1280 x 1024 with 16 colors	1280 x 1024 with 16 colors	1280 x 1024 with 256 colors	1280 x 1024 with 16 colors
Max. Video Colors	16 Million (640 x 480)	16 Million (640 x 480)	16 million (320 x 200)	16 million (640 x 480)	16 million (320 x 200)	16 million (800 x 600)	16 million (320 x 200)
Video Memory	1024 KB	1024 KB	1024 KB	1024 KB	1024 KB	1024 KB	1024 KB
O/S DOS Version	Microsoft DOS 6 22	Microsoft DOS 6 22	Microsoft DOS 6 22	Microsoft DOS 6 22	Microsoft DOS 6 22	Microsoft DOS 6 22	Microsoft DOS 6 22
Windows Benchmarks							
Word Processing	99.54	97 69	85 42	92 06	120.2	119.75	108 2
Spreadsheet	106 17	114 68	96.37	106 56	125.06	119.6	120 03
Database	77 73	90.36	70.06	79.07	112.52	98.4	90 02
Desktop Graphics	119 75	125 08	103.53	121 17	130.66	127 43	127 01
Desktop Presentation	92.26	101.5	83 78	96 74	124 03	112.85	108.23
Desktop Publishing	88	97.29	83 37	98.87	120 8	111.36	105 32
SYSMARK	95 06	101 42	86 31	97 39	121 5	112.58	108 63
Extras				Microsoft CD-ROM Pack (Encarta 95 etc.)	Microsoft CD ROM pack (Encarta '95 etc.)		
Contact	(604) 273-4453	(905) 479-1443	(416) 603 2283	(905) 540-1880	(604) 273 3602	(905) 470-2412	(905) 470 2412
Suggested Retail Price	$2799	$2660	$1828	$2115	$2288	$2380	$1990
Monitor	incl	incl	extra cost	incl	incl	incl	incl

*Prices are for a typical end user configuration, a desktop PC system with hard drive 8MB of RAM multimedia kit (CD-ROM drive, sound card, speakers) keyboard, mouse and MS Windows. Monitor not included except where noted. Extra features are noted in the table.

Prices are manufacturers' suggested retail prices (SRP) as of March 10, 1995; check with your local dealer or ads in *The Computer Paper* and other publications for actual "street pricing."

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Value-packed 486 Systems

Continued from page 15

Data Train: This tower PC offers good performance and great expandability within a roomy chassis, and is good value for the price It ran all the Windows applications tested quickly and well. The keyboard is quiet and responsive, and this computer is generally very pleasant and problem free to use

Express Micro Desktop: A very well made computer with good performance if performance had been just a bit faster it might have been the best of the bunch. As it was it definitely rates as very good value for money

HITS/Daiwa Mini-Tower: A good no frills computer also sold under the Daiwa label, this is an appealing example of what is available from many of the smaller PC makers across Canada. The computer is based on a Cyrix 486DX processor and performance was better than the Ambra and the AST (the AST model tested was also Cyrix based) though still somewhat slower than other models tested.

Pine PC Mini Tower This PC offers a bit more RAM than other models, and good graphics performance at a moderate price. It is also, along with the Sirus models (below) among the simplest when it comes to loading and running the benchmarks

Sirus Tower (VESA and PCI models) This was the first time we'd had a look at a Sirus product also sold as Performax in some provinces and it came as a pleasant surprise Both 486 towers we looked at are well made and well finished and both perform flawlessly They are also among the fastest The PCI bus version was a few percent faster than the VESA local bus model, but they are both among the fastest of the 486DX 66's An excellent product line

Comtex 486 Win Pack This was one of the most nicely featured models we tested. Well designed and solid the Comtex 486 was also one of the growing number of well priced Windows Pcs powered by a non Intel CPU in this case a Cyrix 80mhz processor The system tested perfectly Windows compatible and in fact loaded and ran the entire BAPCo suite of Windows apps flawlessly Its benchmark speed was excellent, and it was also the only system to come with a 5.25" floppy as well as the standard 3 5", as well as a set of Microsoft CD ROMs to try out on its double speed CD This was a quality product.

Seanix ASI 9000: Seanix was an impressive presence in our first benchmark survey (in the January 95 issue of TCP) but the model that was submitted for this month's survey was simply superb At an unbelievably low price, this unit delivered excellent Windows applications performance, and also came with an attractive assortment of Microsoft CD ROMs to get you started in the world of multimedia

And, The Winners:

1) Best Buy: With this 486 survey's focus on value for money we have to award the Editor's Choice Best Buy to the Seanix ASI 9000. It does the job in terms of Windows applications speed, is of excellent quality and is extremely affordable

2) Best Family/Home OfficePC: The IBM Aptiva 350 and the Commodore CD/FX are a tie for the Editor's Choice for Best Family/Home Office PC The Aptiva due to its appealing custom software overlay that makes a novice's use of Windows much easier and both models due to their profusion of well chosen bundled software and pre-installed modem and telecom options The Aptiva 350/486/66, Commodore CD/FX and Sirus VESA and PCI models all had very comparable performance, though they varied considerably in additional features and in price The AST Advantage 6066D had equal appeal in terms of integration aimed at the family/small office PC user but its Windows performance speed was considerably less. ❑

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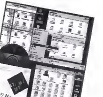
SHOWDOWN at the OS Corral, Part 2

A comparison and evaluation of Desktop Operating Systems

BY GRAEME BENNETT



In this second and final installment of Shootout, we look at how Warp, Windows 95 beta and the Mac OS perform. Let's start by examining how they compare at everyday tasks.

Finding files

Running as a foreground task the standard System 7 Find command took a total of 3 18 to find a file at the root level of a drive over an Ethernet network. (Note times indicate minutes.seconds) Running "in the background " the Find command took exactly the same amount of time It should be noted that because the Mac s operating system does not provide pre emptive multitasking or multi threading, the performance of other tasks (e.g., typing this article into a word processor) was so greatly affected that cursor movement was extremely sluggish, to the point of being almost unusably slow

Running System 7 5's enhanced Find command improved things by a few seconds clocking in at 3 07 but after locating the file on the NT server drive it reported that the file was "missing and was probably deleted " (It was neither) For interest, we also tested the Find command provided by Super Boomerang, a part of Now Software s Now Utilities It found the file in — no kidding — five seconds flat.

We were impressed by this until we tried a similar search using Windows 95 s Find command It found our test file in less than half a second.

We couldn't test Warp's ability to find a file on a network drive — we hadn't yet installed Lantastic for OS/2 — but we ran each OS through tests to find files on the system s internal drive It took 14 seconds to locate a file on the OS/2 desktop and 35 seconds for the Find operation to finish on our 540 MB drive.

On the same size drives running on a CPU of the same speed the Mac OS took two seconds Windows 95 took 2.7 seconds It is worth noting that, of the three operating systems, only Warp required us to use DOS-style wild cards. (Notso* gd?)

Even when we typed the name out in full but left off the extension, Warp could not find it Windows 95 and the Mac OS returned a list of all files that matched any part of a name we typed into the Find dialog's text box. Clearly, Warp requires more familiarity with "the DOS way" of doing things than the others do

It is worth noting that one of Windows 95's biggest liabilities is its lack of an underlying system object model. Both the Mac OS and Warp automatically keep track of the

Continued on page **23**

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OS Shootout, Part 2

Continued from page **20**

links between documents and their icons and/or "aliases" (as they are known in Apple parlance) AKA "shadows" in BlueSpeak. In other words If you create a shortcut to an executable file and place it on the Windows 95 desktop, then rename the original executable, the shortcut will essentially be severed.

The Mac OS and Warp automatically update links to the executable With Windows 95's often-touted long filenames, we can imagine that many users will go gleefully renaming files and directories, unaware that they are severing shortcut after shortcut in the process Suddenly none of their applications work, and a computer expert must be called in to undo the damage We can imagine that a Windows 95 upgrade without proper training and support could result in a tech-support nightmare for many businesses

Loading Text Editors

For our next test we launched the text editor(s) that come standard with each system. Not that it's particularly important, but we found that the load times varied widely

Interestingly we found that programs and files take considerably longer to load on a Power PC than a 68040 based Mac A 200 megabyte file takes 15 percent longer to load on a Power Macintosh than on an identically configured Quadra 800

This is partly due to the fact that much of the Mac's file system has not yet been converted to "native" Power PC code

OPERATING SYSTEM	EDITOR	LOAD TIME (in seconds)	REMARKS
Warp/Enhanced	Edito	3	Technical features
Warp/System	Editor	1.6	
IBM Works (suite)	Word Processor	11.8	Part of Bonus Pack
PowerPC Mac	SimpleText	5.9	Multimedia features
Mac OS (68K)	SimpleText	2.2	
Mac OS (68K)	Notepad	2.0	
Mac OS (PPC)	SimpleText	4.5	
Mac OS (PPC)	Notepad	5.0	
Windows 95	Notepad	5.7	Basic text editor
Windows 95	WordPad	13.8	Basic word processor

Adding fonts also slows down the loading of programs on any operating system. For example adding 100 fonts to the Mac added seven seconds to our SimpleText load times.

To use another example Microsoft Word for 68K Macintosh loaded in 25 seconds on our "stock" Mac; after adding 100 fonts it took 60 seconds to load.

Of the bunch, we deemed IBM Works (AKA Footprint Works) which is part of the Bonus Pack included with Warp to be the most robust word processor It sports a spelling checker, synonym lookup drawing tools tables mail merge — even a macro language The IBM Works suite also includes spreadsheet charting database, and report writing modules.

Other components in the Bonus Pack include a native OS/2 client for CompuServe a wide array of tools for accessing the Internet (discussed later in this article), a multimedia viewer (complete with Photo CD support) fax and terminal software and an interesting product called Person to Person that allows users to see each others screens Warp clearly provides the best suite of bundled applications.

Windows 95's WordPad is a fairly decent word processor, with its tabs, ruler, graphics, alignment settings search-and-replace and the ability to read and write Word 6.0, RTF and text documents WordPad lacks advanced tools such as a spelling checker, though

Apple's SimpleText is, in many ways, the niftiest text editor of the bunch — indeed, it characterizes much of the personality of the Mac SimpleText which we used to write this section, features support for audio recording and playback, reading of the text by any one of a variety of synthesized voices (including male female and several bizarre robot and special effect voices), color various fonts styles and sizes. In addition to the usual cut/copy/paste, loading, saving and printing functions offered by virtually all text editors.

Under System 7.5 SimpleText also supports drag-and-drop moving of blocks of text You can drag a block of text (say an address) out of the editor onto the desktop where it becomes a "clipping" that you can then drop into a new document or even directly into another drag and-drop-compatible program A notable omission in SimpleText is its lack of an Undo command

OS/2's Enhanced Editor was um the most technical with fairly inscrutable menu options like CUA Accelerators, Stack Commands Ring Enabled Stream Editing and so on.

Accessing the Internet

Dial-up Internet access is really quite easy in Windows 95, although we found it somewhat more complicated than using say, a third-party setup script like the ones currently supplied by most Internet service providers.

First, you have to have an Internet service provider. We tested two different providers Wimsey and Mindlink. Both offer a variety of Internet services including the SL/IP and PPP protocols that are required to use World Wide Web browsers like Mosaic or Netscape. Although there are many other Internet tools available, we think the Web is a great place for beginners to start It's easy and familiar to those who like the mouse-oriented point-and-click approach

You pay something in the order of $100 per year to set up a kind of account called a SL/IP or PPP account We used PPP which is generally thought to be a more advanced protocol than SL/IP As Kent Barrett TCP's "night weasel" says "PPP looks like it was written on the back of a paper napkin SL/IP *was* written on the back of a napkin "

Once you've got In Windows 95 up and running, the first step is to install the optional dial-up client software that can be installed using the "Add/Remove Programs" control panel This software is installed as standard fare If you select "Portable Computer" as your PC type Windows 95 provides several different configuration options that range from full-blown to minimal The Dial up software steps you through a very easy set of configuration options, including a place where you can let Windows 95 try to figure out what kind of modem you have or, you can choose its name from a list We selected "Generic 14 400 bps Modem Driver" It worked fine on our test system. It creates an icon that contains your choices and, when you double-click the icon it dials the number But we're not quite ready to do that yet.

For Internet access, you need to install a

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Warp Full Pack Arrives

Thinking that many of the problems we've been encountering with Warp might be solved by the brand-new "Full Pack" version (released at the end of Feb.), we reformatted the hard drives on two machines and installed that version. Twenty-five disks later, we were dismayed to watch both machines grind to a halt with fatal errors during the install process. These were not obscure PCs with esoteric add-ons, either. One was an AST Ascentia 900N; the other an IBM ThinkPad. Both were factory-standard, although the ThinkPad had 8MB of additional memory from a third-party supplier.

The AST suffered from a particularly bedevilling problem: about half the time, the mouse pointer would disappear at startup time; occasionally, it would not boot at all. The rest of the time, it worked normally. Updating the AST's BIOS (you gotta love that Flash ROM!) did not solve this problem.

The ThinkPad, too, behaved strangely. First, it failed with a crash six disks into the install; then it incorrectly analyzed the display as a Western Digital video card and installed the wrong driver. After getting these problems sorted out, this machine was unable to launch the DOS or Windows subsystems, despite the fact that these are supposedly built right into the "Full Pack" release. Reinstalling these elements finally put the ThinkPad and Warp in working order, and we now have a stable ThinkPad.

In all, Warp installations failed on four of our seven tested PCs, installed with some difficulty on two systems, and installed normally on only one: an IBM433DX/S.

By comparison, Windows 95 worked properly on all five machines we tested it on, and worked after some tweaking on a sixth. System 7.5 installed without difficulties on all Macs we tried it on, although we reverted to an earlier version when we discovered that the Radius SoftPivot software would not work with 7.5. (This problem has since been resolved.) ❑

network protocol called TCP/IP. This will let your computer communicate with the others on the Internet.

Next, you have to go into the Network control panel and make sure that TCP/IP is, in fact, installed. If it isn't, everything else may seem to work, but you won't get very far.

Then, you click on the button labeled Protocols and, from the tabbed dialog box that appears, choose IP Address. Here you type the IP Address of your Internet provider. It will be a number like 198.162.16.1 or something like that. Below that, you enter the Subnet mask (ours was 255.255.255.0) and that's basically it. The rest is easy.

The dial up client software is an optional set of software tools that can be installed using the "Add/Remove Programs" control panel. After installing a couple of disks worth of networking software, choosing a modem, and the TCP/IP protocol, you are ready to type in the access number of your Internet service provider. At this point, there are a few possibilities, depending on what your service provider expects as a login procedure. While we were exploring the possibilities, we chose the modem configuration option "open terminal windows after connection." Here, we were able to type in our name and password, pressing return after each entry. After a few seconds, the terminal dialog (which, like most Windows 95 dialog boxes, has nifty little animated icons) reports that it has successfully connected and then... we were in! Compared to the hassles of Trumpet Winsock, login scripts, or even the relatively sophisticated NetManage Internet Chameleon (which I recommend for Windows 3.x users, by the way), this is Heaven.

Other options are available in the dial up client dialogs, where you can set things like modem speed, flow control on/off, SLIP (with correct IP address), PPP, passwords in or out, no software compression, no encryption, and so on.

After a little debugging (by reading the login instructions for Wimsey, we discovered that we needed to append "%PPP" to the end of our user name in order to tell it which protocol we wanted to use), we were able to dispense with the terminal windows and set the dial up connection to send the name and password automatically. This had the pleasant side-effect of eliminating a couple of "Continue" and "OK/Cancel" buttons that had appeared after the terminal window login.

A nice touch is the modem icon that Win95 places on the task bar. It has little flashing "lights" on the face of the modem icon, signalling modem activity. This can be handy when you're using an internal modem. If you rest the mouse on the icon, a "Tool Tip" pops up that tells you how much data you've sent and received, and if you double-click the icon, it opens up an informative windows with more details. Nice!

So, to summarize, we chose a modem from the list of modems, chose TCP/IP from the list of protocols, configured both with our service provider's information, and that, as they say, was that. You could probably do the whole setup in two minutes flat once you know how.

Like Windows 95, the Macintosh System 7.5 provides a relatively simple method of connecting to the Internet.

There are two important control panels that must be opened and set up to configure a Mac for TCP/IP access: MacTCP, which comes with System 7.5, and MacPPP, which is available from numerous sources (we found it at http://www.tidbits.com/).

Once again, of course, you must have the IP address, phone number and other information that your service provider will supply.

Warp provides two substantially different methods of getting connected to the Web: Advantis or a third-part provider. Either way, once you've set it up, you just double-click an icon to connect and pay, pay, pay. See the section called Accessing the Internet in this issue's OS Corral article for more information on Advantis.

Third-party providers are, we feel, best recommended only if they explicitly support Warp. This means that they will supply a logon script that configures Warp for their service. (This script is written in OS/2's macro language, REXX.) We've browsed a couple of TCP/IP configuration scripts and, all we can say is, you don't want to be creating one of these things yourself, unless you are not easily intimidated. Fortunately, IBM supplies a number of heavily commented sample scripts that can be modified. Many service providers provide pse-

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built scripts which make Warp connections a snap

The package calls Warp "Your on-ramp to the information superhighway" — naturally, we expect that many Warp users will want to explore this aspect of their computer Similarly, both Windows 95 and Macintosh System 7 5 feature built-in support for the TCP/IP protocol that is used for communicating on the Internet We tested the Internet connectivity of all three operating systems and, generally Warp wins out. Here's why

Warp provides a complete solution. Well almost In the initial release some programs and connection options aren't provided "out of the box," but once you get the basic connection established, an icon called "Retrieve Software Updates" does just that

We retrieved IBM's Web Explorer, a so-called "gamma" (pre release) version of the increasingly common PPP (point-to-point protocol), and several other software updates in this way The utility automatically connects to IBM s Gopher server, lists the items available for download and once you've made your selection downloads, unpacks and completely installs the software — it s hard to imagine anything simpler This is one of the best uses of the Net we ve seen yet other companies should take a cue from IBM and "auto-update" their users in this way

Of course getting the basic Internet connection established is the trickiest part for most would-be Net surfers IBM has made gains here, too You have the option of using a local third-party Internet service provider (TCP published a list in the March 95 issue) or setting up an account on IBM s own "Advantis Network," for which Warp provides a 1-800 number to sign up with.

It s worth mentioning that the price of IBM's Internet service dropped approximately 50 percent as of March 1 Briefly, the new Canadian prices are as follows.

After the trial access period of 3 hours, or 30 days whichever comes first, there is a one-time registration charge of $25 per subscription

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If you'd rather use a local service provider, it is also possible to connect this way How easy this is depends on whether the service

Continued on page 28

Clarifications Regarding Part 1

I must rectify an error that crept into last month s report on OS/2 Warp in that issue, I claimed that Warp did not support Win32s This is not true, although it's not hard to see why I arrived at this conclusion.

As it turns out, only the current versions of Win32s (v1 15 or later we have 1 20) aren't compatible with Warp This is a problem, as programs like Photoshop ship with — and require — version 1 15a or newer, but for what it s worth, Warp does work with Win32s v1 0 or 1.1 In other words Warp users may have some success running Win32 apps if they use one of these compatible Win32s versions.

Also, the word "previously" should have been left out of the sentence "Warp requires DOS and Windows to be previously installed if the ability to run Windows programs is required."

In fact we did find that DOS and Windows could not be successfully added to our test machine after Warp was installed (e.g we reformatted installed Warp then encountered a fatal error while attempting to install DOS and Windows) but we could not verify whether this was a problem unique to our machine, or a common problem. Nobody at IBM could verify whether this particular function actually worked as documented either

This was how we came to insert the word "previously" in our article However, we decided to remove the reference to this test because we had only observed it on one machine, and frankly the test took so long, we didn't have time to run it on several different machines We thus decided to not risk calling it a bug so we deleted other references to this alleged problem.

Since then we have performed further tests and it worked as documented. Ah well, as they say "Pentium happens " ❑

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OS Shootout, Part 2

*Continued from page **26***

provider supplies a REXX (macro language) CMD script to handle the connection process. If so it s a snap If not, it s very nearly impossible using the SLIP protocol that is supplied with Warp but is quite easy using the PPP protocol you can download once you re connected. (Remember, you could use IBM's free trial period to do this.)

The "Dial Other Internet Providers" program supplied with Warp s Bonus Pack has a Help button that lists the important details of what you need to do Basically, it works like this you enter the name of a CMD script (samples are supplied, and OS/2-friendly Internet providers will provide their own) in the dialer's login dialog along with a few other pertinent pieces of info that your provider will give you when you purchase an account select the model of modem you are dialing with and click "Dial "

I wouldn't exactly call it easy but it s slightly easier than either the Mac or Windows 95 control panels, which require the same info.

Thankfully, all three systems require that you deal with all this techno-babble of IP addresses, Domain names, and so on, only once

The next time you click Dial, it's a one-step connection

We also liked the way that Warp s registration program was smart enough to Canadianize the postal code and province fields after we entered Canada as our country of origin Unfortunately the system failed or froze on several occasions during the sign up procedure on two separate machines so we can't report that the process was trouble free

Hopefully, you'll have an experience that more closely resembles IBM s vision of "one-button access to the Internet," than our several-dozen click experience. This problem as it turned out happened to us many times during our tests of Warp Things just wouldn't work, we rebooted, tried it again and everything was just fine Hmmm

Disk Structure

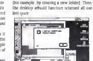
The Mac's system of having a visible data fork and an invisible resource fork for each file is both a blessing and a curse Among other things these resources contain the information that the Mac uses to display color icons for files The icons are added to an invisible "desktop database" that the Mac maintains to keep track of where files are and what their icon(s) should be On one hand, this desktop database provides much of the Mac s trademark ease of use it allows programs to automatically recognize their documents and continue to function no matter how they are renamed or where they are moved on a hard drive or network

On the other hand, the system makes it unduly difficult to alter the information in the invisible resource fork — especially since Apple provides no tools capable of this task as part of the standard operating system.

These invisible resources can slow things down considerably For example, copying a large number of files also means copying this invisible data, a process which slows the process. It took four minutes to copy 100 files totalling 1 1 megabytes onto a freshly formatted Mac disk. The invisible resources can also cause some problems that are mystifying to beginners and experienced users alike. After we had thrown all 100 files in the trash and emptied the trash, our disk, which had previously had 1 4 MB available now had only 859K of free disk space! In other words, the invisible desktop database resources were still hogging 533K of our disk, even after the files had been deleted.

This diskette also took an incredibly long time to appear on the Mac's desktop the system was busy processing the now-useless database information from the deleted files for no less than 28 seconds on our 33MHz test machine!

Although Apple provides a method of solving this problem known as "rebuilding the desktop," we uncovered a bug in the routine which requires that the user hold the Command and Option keys while mounting a disk When we attempted to rebuild the desktop on this now-empty disk, the desktop rebuild released no additional free space until we placed at least one file or folder on the disk (for example by creating a new folder) Then the desktop rebuild function returned all our lost space



Bogus Mac Error message

Speaking of bogus, what s up with this error dialog which occurred when we attempted to replace a file created in one program with another program s file with the same name?

"The command could not be completed, because it cannot be found."

Huh?

Copying these 100 files to a Mac floppy took our 33MHz Mac 3 42 Copying 100 files from an Ethernet network drive to Mac floppy took 5 55

For comparison we managed to copy the 100 files onto a DOS formatted disk in 2 15 using Windows 95 on a 33MHz 486

Going the other way i.e. copying files from floppy to hard disk, produced interesting results The Mac copied the 100 files in 1.22. Warp took a 2 05 to copy the same files to a local hard drive Windows 95 took only 14 seconds to complete the task.

Copying via Windows 95 from floppy to a drive on an Ethernet network took 45 seconds. Here, the Mac took 1 09 That a Mac s network copy should be faster than one to a local hard drive remains an anomaly we cannot explain.

Long filenames were maintained when the Mac and Windows 95 wrote files to our server They were also maintained on floppy disk, although not when either one read a floppy disk created on the other Warp did not maintain long filenames from either system, although it maintains its own long filenames when files are copied to or from a disk.

While we're discussing copying files, it is worth mentioning that Warp s awkward way of handling this operation (for example, you have to click 'Cancel 100 times if your destination drive contains the same 100 files you are trying to copy), and its lack of adequate help or tutorial on the subject, frustrated our test users who were able to easily figure out how the Mac and Windows 95 accomplished this task Moreover, some expressed concern

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that certain operations, such as selecting multiple icons using Warp's left mouse button did not behave as expected when the window being viewed was the Tree view of a disk drive.

Formatting a disk

Using Apple's system software, formatting a disk on the Mac must be done in the foreground. No other tasks can be started or worked on, nor does Apple provide an option to do a quick reformat. Working again on our 33MHz test machine, a full HD format took 1 55.

In addition to the standard Mac disk format, System 7 5 provides the ability for disks to be created that can be read and written by an IBM-compatible PC. Support for Apple II-standard ProDOS diskettes is also provided by the PC Exchange software included as part of System 7 5.

Using Windows 95 and Warp, formatting is a background task. Other tasks can be started and worked on at will. Windows 95 completed an HD format in 2.25 on our 33MHz PC, a quick reformat of an existing disk was finished in only 11 seconds. Windows 95 also provided other options, such as making the disk bootable or creating a results report.

Warp took 1 38 as a foreground task; operating as a background task did not affect performance significantly. Warp's GUI does not provide quick reformat or bootable disk options.

It's also worth mentioning that, after attempting to view the contents of a known-to-be-defective disk, Warp required no less than 16 mouse clicks to cancel out of the error(s) that resulted. The Mac and Windows 95 each recovered with a single click.

Here's the scorecard from our informal poll of editors, reviewers and systems administrators, showing relative strengths in several areas.

Scores range from 10 (excellent) to 1 (poor).

Plug and Play:

Macintosh (9)
Windows 95 (7)
Warp (2)

The Mac is a near-perfect plug and play computer. You plug a Nubus card in, and it works — first time, every time. Of course, that's assuming that you can find a card. You see, makers of expansion cards are terrified of Apple, due to its tendency to change the expansion connectors all the time. Various Mac models have a wide range of different — and usually incompatible — expansion connectors.

There are 12-inch Nubus, 7 inch Nubus, Nubus 90, different processor direct slots for 020, 030 and 040 (Apple now has 90 different models of Macintosh and several different types of processor direct slots), proprietary expansion connectors for the 630 series Macs, AV video and audio connectors (Apple sells both electret and dynamic types of microphones that both fit the same shape of connector, but are compatible only with specific models), several different designs of PowerBook expansion connectors, PCMCIA "card cages", different shapes and sizes of SCSI connectors, several different shapes of monitor connectors, several different kinds of SIMMs and so on.

Of course, this is nothing compared to the complexity of the PC-add on market, but for a single company it's still far too complicated, and has served to virtually kill the market for Mac expansion cards. Apple is about to announce its next generation of PowerMacs with PCI bus, which will add yet another item to the list. If Apple is smart, it will make sure that every Mac from now on has at least one PCI slot.

However, provided that you get the right hardware to plug in, you can pretty much expect the Mac to take it from there. And because every Mac has a network connector built in, networking is nearly as easy. With their built-in SCSI connectors, Macs make it easy to add scanners, CD ROM drives, hard disks, and other storage devices. The Mac's most compelling advantage is its plug-and-play ease.

The anemic PnP specification, and the need to retain compatibility with the vast number of existing ISA cards out there, hamstrings the implementation of Plug and Play under Windows 95. However, on a machine with a PnP BIOS, using a PnP card, it works well.

We've heard that machines using IBM's Microchannel architecture won't be supported by Windows 95's PnP manager. This is ironic, because MCA is one of the architectures best suited to Plug and Play.

IBM says that it doesn't support PnP other than PCMCIA at the moment. However, certain ISA cards, such as a SoundBlaster 16 we added to our Warp machine, were automatically detected and configured when we set up Warp's multimedia options. We'll discuss multimedia under Warp in an upcoming issue. PnP support for OS/2 is planned for a future release.

Continued on page **30**

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OS Showdown, Part 2

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Generally, Warp's "Plug and Play" PCMCIA support worked well on the ThinkPad. When we plugged an Angia SafeJack modem card in after installing PnP support, Warp correctly identified it. But we ran into a few problems with the Hilgraeve comm program (supplied with Warp), which sometimes hung the system. We then had to remove the PCMCIA card to recover from the error.

Internet Access:

Warp (8)
Windows 95 (7)
Macintosh (6)

While Windows provides better help and a better TCP/IP configuration interface than the MacOS, we appreciated the Mac's ability to automatically launch MacPPP and dial the phone when an application such as Netscape Navigator or NCSA Mosaic is launched.

Apple supplies MacTCP, PowerTalk system level messaging software and a client for its eWorld service; Internet tools (including dial-up MacPPP software) must be sourced elsewhere.

Windows 95 supplies a client for the Microsoft Network, a PowerTalk-like universal mailbox called Exchange, and SLIP and PPP dial up software. Microsoft says that it has licensed the Spyglass Mosaic Web browser for inclusion in the final release.

Warp provides the best suite of Internet tools, although it must be said that, aside from the University of Minnesota's popular Gopher client, better versions of most of the tools can be found from third parties.

Current releases of Warp do not include a Web browser; however, this can be obtained and more-or-less automatically installed, along with PPP support, by connecting to IBM's software update service on the Internet.

Warp uses IBM's mainframe-derived REXX scripting language to ease the process of getting connected to the Internet. Users who have to create or modify a script to connect to their provider's system will have to suffer the consequences.

Provided, however, that such a script is written and supplied by the service you are connecting with, Warp is at least as easy as the others. Indeed, even dial up access from Windows 3.x is easy in this case.

Networking:

Windows 95 (8)
Macintosh (7)
Warp (NA)

Picking Windows 95 over the Mac was a tough call. As mentioned earlier, every Mac has built-in network connectors, thus the Mac is a lot easier to do basic networking with. AppleTalk is slow (275Kbps), but some newer Mac models have Ethernet connectors that zip along at a much more healthy 10Mbps.

However, the Mac is clearly a second-class citizen when it comes to coexisting on mixed networks, and it is here that Windows 95 roars ahead. There are many examples — we haven't room to mention them all. For instance, Novell's Mac client software lacks many features of Novell's PC client. Windows NT (which provides generally good support for Mac clients, by the way) has numerous minor snags, and its Remote Access function doesn't support the Mac. Thank goodness Farallon's Timbuktu, which allows remote control of another user's computer, is available for both PCs and Macs, and works rather well.

Apple hasn't yet delivered a PC client for its own AppleShare server (although, as reported in our January issue, it announced one at MacWorld in January), nor has it delivered software that will allow a PC user to dial into an Apple network via a modem (also promised RSN).

So if people want to use both PCs and Macs, their options on the Mac end are limited. E-mail can also be troublesome for mixed networks. Microsoft has stated that its Mail for Macintosh won't ever be upgraded, and Lotus doesn't fully support the Mac with its connectivity products. We have found that FirstClass, from Canada-based SoftArc, currently provides one of the best ways for Windows and Mac users to share e-mail, Internet connectivity, files over a network or dial-up connection.

Although Warp doesn't provide any built-in networking support, a program such as LANtastic for OS/2 adds networking functionality for compatibility with Windows networks, and IBM's LAN Server 4.0 includes the necessary software to support Warp clients too. We're currently testing LANtastic for OS/2. Look for a report in an upcoming issue.

System Tools Provided:

Windows 95 (8)
Warp (7)
Macintosh (3)

Disk defragging, virus checking, disk repairing, text editing, system level script writing and other such tasks are invariably provided by

Continued on page ***32***

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OS Showdown, Part 2

Continued from page 30

third-party vendors. But even lowly MS-DOS provides all of these too, and Windows 95 takes them a giant leap further. Apple, with its "you don't need to know that" attitude to the innards of its operating system, is far behind Warp, which also provides a good selection of utilities. As mentioned earlier, Warp's bundled Bonus Pack also provides a great set of "meat-and potatoes" applications, such as telecom, word processing, charting, database management, etc.

We'd like to see Apple include a few of the features that its PC counterparts supply, such as fax software, screen savers, a simple graphics editor, and basic telecommunications capabilities.

Multitasking:

Warp (9)
Windows 95 (7)
Macintosh (2)

Windows 95 has true preemptive multitasking only for 32-bit apps. 16-bit apps are multitasked cooperatively, which means that a single rogue 16-bit task (such as a Windows 3.1 application) can still bring down the house of cards.

OS/2 provides better protected mode support for 16-bit applications. In real world use, though, we found Windows 95 to be approximately as stable as Warp. In fact, because Windows 95 makes CONFIG.SYS and AUTOEXEC.BAT entries essentially optional (they are only there for compatibility with existing programs that expect to find them) we found startup problems and errors somewhat more common under Warp.

Startup Problem Management:

Warp (9)
Windows 95 (8)
Macintosh (6)

Windows 95 has a list of startup options that appears when you press F8 at startup. It includes an option for creating a text log of the boot process, and another that lets you step through the startup files one by one. We were able to start the Windows 95 GUI in "Failsafe mode" even after deliberately botching up system files that would have caused catastrophic problems under Windows 3.x.

Other Win95 options include starting Failsafe mode with network support, starting only a command line, starting a command line while skipping all startup files, and starting the version of MS DOS (if present) previously installed on the computer.

Warp provides a great feature that archives your original system configuration. You can resurrect your original CONFIG.SYS file, reconfigure your system or return an illegible video display to a working state by pressing Alt F1 at bootup and choosing one of the available options. This saved our butts a couple of times.

The Mac allows you to turn all system extensions off by holding down the Shift key at startup time; a Control Panel called Extensions Manager allows more selective control once the GUI is running. There are much better extension managers available from third parties, but the supplied one handles the basics.

Compatibility with Existing Hardware:

Windows 95 (8)
Macintosh (7)
Warp (4)

In the four months we've been testing Windows 95, we've only found four pieces of hardware that appear to be incompatible. Two were PCMCIA devices (or more precisely, their driver software), and the other two were video cards. (It should be added that we tested several PCMCIA and video cards that worked correctly, as well.) Every audio card and CD-ROM drive we've tested has worked (albeit with a little fiddling now and then); network cards, SCSI interfaces, modems and so on have generally worked as expected.

It's hard to objectively discuss hardware compatibility without digressing into issues such as the physical design of the computers these operating systems run on, but several issues conspired to affect the Mac's score in this department. To be fair, nearly everything designed for a Mac that we connected to our Macintosh worked under System 7.5. The only exceptions were Radius monitors: our Color Pivot and 20-inch gray scale monitors both failed; the company has said that we're out of luck in the latter case.

However, as is probably obvious, there are a lot of hardware items designed for the PC that aren't supported by the Mac. Although some of these items are Intel architecture specific and aren't physically compatible with the Mac (e.g., VL-Bus, MCA, EISA and ISA expansion cards are all incompatible), other devices have incompatibilities that are more subtle.

For example, parallel connected devices such as printers that require bi-directional

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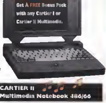
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communications don't work (and can't be adapted using any existing device, although Burnaby BC based GDT Softworks says it is working on an adapter), input devices such as PC mice PC keyboards, PC joysticks, flight controls and so on don't work (an adapter called Mediator that allows Mac users to connect a PC keyboard and/or mouse is available from Cybex at 205-430-4000), also PC monitors PCMCIA cards RAM memory SIMMs IDE devices and PCI adapters may or (more likely) may not work despite the fact that they might physically plug into a Mac or PowerBook connector Most PC modems and PC SCSI peripherals worked properly on a Mac with the appropriate driver software

Generally we found that devices not specifically designed for a Mac gave us problems Naturally the same can be said for a PC — it's just that there are a lot more PC products out there.

Compatibility with Existing DOS Apps:

Warp (9)
Windows 95 (9)
Macintosh (2)

The less sound and animation a DOS app uses, the more likely you are to be delighted by how it runs under Warp. DOS is a pretty easy target to beat and Warp is truly a better DOS than DOS with the possible exception of Warp's truly scary CONFIG.SYS file, which is about 10 times as long — and as complex — as that of DOS

Windows 95 ran virtually all of our DOS apps without incident (a Life Magazine CD-ROM was one of the only titles that failed)

Moreover, we were able to REM out nearly everything in our CONFIG SYS and AUTOEXEC.BAT files, which freed up extra memory (we found we had to leave a couple of lines in AUTOEXEC BAT to initialize our Audiotrix sound card and to configure our GlidePoint touchpad, but that's about it) For what it's worth, we didn't encounter a single "out of memory" error during our tests of either Warp or Windows 95 It must be said that we didn't test a lot of games on either of these operating systems we've heard mixed reports on compatibility with existing games Microsoft says it finds that about eight out of 10 DOS based games work properly. Yes, Doom works

While the Mac has essentially no innate "DOS compatability" — thank goodness - it can emulate a DOS PC with a number of third-party hardware and/or software solutions Accessing DOS diskettes and converting most PC data files is not much of a problem for a Mac but overall, the differences between Macs and PCs make the Mac poorly suited for running DOS apps - especially DOS games

Compatibility with Existing Windows Apps:

Windows 95 (9)
Warp (7)
Macintosh (3)

If Windows 3 0 and 3 1 compatibility was the

Continued on page 42

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1.08 GB Quantum SCSI-2	[illegible]
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[illegible]	[illegible]
Canon BJC-4000 Color	$545
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HP DeskJet 560C Color	$675
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HP 4P 4ppm 2M, 600dpi	$1365
HP 4MP 4 ppm 6M, Postscript	$1899
HP 4+ 12ppm 2M, 600dpi	$2038
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SINCE 1985

ClarisWorks 3.0.

BY THE COMPUTER PAPER EDITORS

Product: ClarisWorks 3.0
(for Macintosh and Windows)
From: Claris Canada
Price: Macintosh $179
Windows $149

ClarisWorks could become a general office appliance for many small or home-based businesses. It provides most of the functions that most of us typically use. We like the fact that it is relatively inexpensive and doesn't require as much disk space as something like Microsoft Office. Also, like Office, it is available for Macintosh and DOS/Windows versions, which is a benefit for organizations that use both platforms.

On the other hand, while ClarisWorks excels at general duties, you probably won't want to give up your specialized standalone applications: a spreadsheet if your business involves a lot of sophisticated number crunching, or a database application or contact manager if you deal with lots of customers. Professional designers should keep their arsenal of DTP, drawing, painting and photo editing tools, while editors should cling dearly to their word processors.

These two realities probably best illustrate the strengths and weaknesses of this latest release from Claris.

Like previous versions of ClarisWorks, version 3.0 includes word processing, database, spreadsheet and drawing modules. The Macintosh version also includes Claris Organizer, while the Windows version includes a copy of FaxWorks developed by SoftNet Inc.

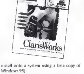
Pros

In most situations ClarisWorks 3.0 is a fine product that eliminates the need to purchase $900 application suites. It is compact, efficient and doesn't need huge dollops of RAM to run. A typical business document one might produce regularly is a text file with an embedded spreadsheet table and graphic. ClarisWorks handles that kind of everyday memo with ease.

With release 3, Claris has made the Windows and Macintosh files binary compatible for the first time. This means the files created on one platform can be read on the other without any intermediate translation. The Macintosh version of ClarisWorks 3.0 is speedier than its predecessor in many important ways. Opening a text file that took 54 seconds with the Power PC version 2.1 took only 33 seconds with ClarisWorks 3.0.

It also provides good support of System 7.5's Apple Guide and implements Balloon Help quite well.

We found the Windows version somewhat slower to load than what we remembered of V1.0, but the fact that its features are now on par with the Macintosh version makes up for it. ClarisWorks for Windows is also one of the first applications we've come across that claims to be Windows 95-ready. (Although, ironically, it would not install onto a system using a beta copy of Windows 95.)



One of the most valuable features of the upgrade is a feature the company calls ClarisWorks Assistants. The program now presents you with the option to start a new document with the assistance of — what else — an assistant, to help you set up a nicely formatted document.

ClarisWorks 3.0 features a shortcut keys floating button bar which is kind of nice, and the spell checker seems to work quite well.

Cons

Where ClarisWorks falls short is in the depth of features in each of its modules. For example, we wouldn't use it as our main word processor in the editorial department because it lacks essential features. It doesn't have a "change case" feature, and since many contributing writers insist on writing subheads and emphasized text as ALL CAPS, we need this feature all the time. ClarisWorks' word counter is also nested two levels down, which makes it less convenient than with a package like Word.

Other problems we encountered were platform specific. On the Mac, we found ClarisWorks' File dialog to be incompatible with SuperBoomerang's Show Info function. We also didn't like the export data function, because the list of export options is too long to be convenient. ClarisWorks also doesn't support standard "command-shift-b" keystrokes for defining bold (etc.), and saves text with creator type "MacWrite" (no way to change this!)

Conclusion

On the Macintosh side, this is one of the least significant version upgrades we've seen and were it only a Macintosh upgrade, it really shouldn't have been called 3.0 at all — 2.2 is more like it. After all, the screen and all of the menus are identical, except for the aforementioned ClarisWorks Assistants, a "Document Summary Info" entry in the File Menu, a Word Count function, and a MacWrite Pro filter.

However, version 3.0 does bring the Windows version up to the same code base. That, to us, is significant, and will also be an important factor for any organization that has a mix of Macintosh and PCs.

In summary, it is faster than its predecessor, seemingly bug free, and inexpensive. And for home and small business users, that's three out of three. ❑

Contact: Claris, Canada 416-941-9811

Don't Fail to Plan

ON YOUR OWN
by Douglas Gray

Put it in Writing

There's an old saying: Entrepreneurs don't plan to fail, they fail to plan. You want to make sure you don't make the same mistake.

Many people live and work without a clear sense of direction and attainable goals, or benchmarks to monitor and mark their progress. Researchers have determined that people who set personal goals — in writing — are more successful, suffer less stress, and tend to work smarter rather than harder.

In running a business, a written business plan is an essential part of goal attainment. Most small business owners don't complete a written business plan. It is not too surprising then, that most small businesses, historically, have problems and cease to operate within five years. And it's not surprising that many business owners go through stressful periods where they are overworked and overstretched. The joy, challenge and fun of the venture quickly evaporate.

There are many reasons why few entrepreneurs put a plan in writing and monitor it. Many don't know how to do it. Others don't know how to prioritize their time. Still others, intending only to run a part-time business out of their home, figure they don't need a plan since they don't need to borrow money.

All these impediments ignore the key compelling benefits of a properly written and monitored plan. It is a graphic and powerful motivator, a catalyst to action. It allows you to visualize your dream, to feel it and taste it. By predicting and then evaluating your performance and progress against those projections, it builds awareness, self-confidence and pride. It is the single most potent predictor of success, and pre-emptor of problems, in small business.

The format and structure of each business plan varies. To be effective, however, your plan should answer the following questions, as a minimum:

- Where am I now?
- What are my personal and business goals and objectives?
- Is this business concept a good personal fit?
- Is this a viable business initiative?
- Where am I going?
- How am I going to get there?
- Who will I use to help me get there?
- Who is my target market?
- Who is my competition?
- Where am I going to get the money for my ongoing needs?
- What contingencies should I plan for?
- How often should I monitor and revise my plan?
- What is my action, implementation and time schedule?

There are many business plan reference books available in the bookstores or library. There are also some excellent business plan software programs available for under $100. Have your plan constructively critiqued by relatives or friends who will be candid in their feedback.

To illustrate the perils of business planning, let me tell a sorry tale of how six intrepid Canadians, otherwise savvy and successful people, formed a company, put in $25,000 seed capital each, and then proceeded to blow the whole thing in six months. Two of them were business lawyers, two were chartered accountants, and two were experienced businessmen.

The story goes back to 1980, when gasoline prices in the US were at a premium. This motley crew of entrepreneurs saw an opportunity to import a gas-saving device from Italy to California, to fill the needs and tanks of gas-thirsty Americans. Although a financial plan was prepared, no other detailed plan was written. And the financial assumptions were flawed! Rather than calculate three scenarios — liberal, realistic and conservative — the revenue projections were optimistically overestimated and the expenses underestimated.

The other pitfall was not prudently planning for contingencies, such as supplier and regulatory delays, the nature and extent of competition, and public cynicism about the product's quality.

You will be spared the sordid details, but the outcome was a disaster from conception to strategy and implementation. Yet all that could have been anticipated and avoided with a detailed and realistic business plan. With such a plan in hand, a rational decision would have been made not to proceed.

Should these enlightened individuals have know better? You bet. Which proves that no one is immune from the double temptations of greed and haste, coupled with unfettered entrepreneurial zeal! All six partners were affected by the same euphoria. I should know. I was one of them. ❑

Douglas Gray, LL.B., is a Vancouver-based speaker, retired lawyer, columnist and author of 14 business books plus a real estate investment software program. His books include: Home Inc. (The Canadian Home Based Business Guide), The Complete Canadian Small Business Guide and Start and Run a Profitable Consulting Business. He is the President of the Canadian Enterprise Institute Inc.

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BUYER'S GUIDE

How To Succeed In Advertising Without Really Buying:

A Rough Guide to Reading Computer Ads

BY BOSS MACDONALD

1 **The Central Processing Unit**
486 SX, SL, DX, DX/2, Pentium etc.

2 **RAM**
4 MB RAM (expandable to 64 MB)

3 **Hard Drive Or Hard Disk Or HD**
340 MB Hard Drive

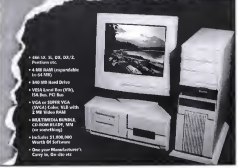
4 **Expansion Bus**
VESA Local Bus (Vlb), ISA Bus, PCI Bus

5 **Video Cards and Monitors**
VGA or SUPER VGA (SVGA) Color VLB with 2 MB Video RAM

6 **Multimedia**
MULTIMEDIA BUNDLE, CD-ROM READY, MM (or something)

7 **Extras**
Includes $1,000,000 Worth Of Software

8 **Warranty and After Sales Service**
One-year Manufacturer's Carry in, On site etc.


• 486 SX, SL, DX, DX/2, Pentium etc.
• 4 MB RAM (expandable to 64 MB)
• 340 MB Hard Drive
• VESA Local Bus (Vlb), ISA Bus, PCI Bus
• VGA or SUPER VGA (SVGA) Color, VLB with 2 MB Video RAM
• MULTIMEDIA BUNDLE, CD-ROM READY, MM (or something)
• Includes $1,000,000 Worth Of Software
• One-year Manufacturer's Carry in, On-site etc

Happily barreling along through life — more or less — I recently decided on a brief holiday to visit my family in Toronto Though not entirely an innocent, I had no idea of the dangers lurking ahead

It is inflicted on so many adult children, yet we invariably think it can only happen to the other guy I should have anticipated it. I knew it would come sooner or later Yet I was caught with my trousers plainly in an ankular disposition.

Yes, my parents pronounced their plan to buy a computer And worse, they wanted me to help them!

I should add, however, that I have exceptionally technical parents At least one has figured out how to set the clock on their VCR. But as I heroically struggled to survive their barrage of questions, I came to realize just how much techno babble current computer shopping commands

- What's SL, SX and DX?
- 486 is good huh?
- This one's got four "embee-ar-ay-em"
- Is two hundred and ten "embee aitch dee" good?
- How come this one with CD-ROM is cheaper than that one with nuthin'?
- What's multimedia? Do we need to buy some of that?
- Do we really need a printer?
- What programs should we buy?
- Those little ones are nice and tidy, how much do they cost?

Emerging from the ensuing coma, I knew something simply had to be done And this is it — A Rough Guide to Interpreting Computer Ads. It's not a cure but it'll go a long way toward avoiding future filial strain If just one person is saved from imminent compuparentitis, it will have been worth it. Cut it out Save it You just never know when you're going to need it.

1 The Central Processing Unit

486 SX, SL, DX, DX/2, Pentium etc.

This is usually the first thing listed in any computer ad It tells you what kind of central processing unit (CPU) is the actual brain of the computer

The "486" part identifies the generation of the chip according to a system first developed by Intel After the 486, Intel chose to call the next CPU chip Pentium, rather than 586 It then trademarked the name so competing chip vendors couldn't claim they had a Pentium too, even if they were able to make a chip of comparable power

You'll see 486 or Pentium followed by a number which tells the speed of the chip measured in megahertz, or MHz. The higher the number the better — a 486 "25" is slower than a 486 "33" for example Likewise a Pentium 90 is faster than a Pentium 60 However, a Pentium 60 is faster than a 486DX-66

Simply put, the Pentium is the fastest and most expensive CPU right now, because it's a 64-bit chip while the 486 is a 32-bit chip. Just remember that the Pentium really is a lot faster and speed is everything in the world of computers. It's safe to say that a 486 "33" is the absolute minimum to buy these days.

Between the chip model (486 Pentium, etc) and the speed number you'll find some letters. If you see "SX" after "486" it means that the chip doesn't have a math co processor A 486 DX on the other hand does A math co-processor is like a whole other chip that specializes in crunching the huge volume of numbers found in spread sheets and a lot of graphics programs Even if you think you don't need that kind of computing power It's always a good idea to go for the "DX" because today's (and tomorrow's) software is extremely demanding in ways you can't even imagine You can add a math co-processor to an "SX" later, but a "DX" chip has one already built in and doesn't cost much more than the "SX"

An "L" showing up anywhere in the chip designation — 486DL 33, for example — simply means that this is a version of the 486 DX that's been designed to run on only 3 5 volts instead of the usual 5 These are popular in portables for conserving battery power but they're also good in desktops because they run at a cooler temperature and heat is the mortal enemy of your CPU

There's a couple more twists You will notice lots of computers with a number like "486 DX2 66" or "486 DX4 100" This means that the internal clock that regulates the chip's calculating speed has been artificially accelerated by two times (DX2) or three times (DX4) Rumor is that they called this three times acceleration the DX"4" because somebody else was already using the DX3 name Regardless a DX2-66 is really a DX 33 with a doubled clock speed, a DX2-50 is a doubled DX 25 but a DX4/100 is a tripled DX 33

Free speed — sounds great. Keep in mind however, that while a DX2 is faster than its original DX chip, it isn't twice as fast. A DX4 is faster than its original DX chip speed but only about twice as fast.

A second twist. Most of the above refers to Intel's naming convention Some chip makers follow similar conventions others don't AMD, for example, also makes a 486DX chip Some computer makers add an "i" in front of the number (i486DX) to let

➤

people know it is an Intel chip. If you see a 486Dxr or Cx486Dxr that's a 486-level chip made by Cyrix Some IBM models use a BLC designation which stands for Blue Lightening Chip

RAM

4 MB RAM (expandable to 64 MB)

Things get easier at this point "RAM" stands for Random Access Memory and just as with most computer stuff, the more the better Explaining how memory works would take volumes (see Computer Paper, November '94) but all you need to know is that 4 megabytes — or megs or MB — of RAM is absolutely positutely unequivocally the smallest amount you can have in a computer if you're going to run today's software But with only four megs of RAM you'll find that everything runs at a pace that's bust pullingly slow

That's because RAM is where a lot of software information is stored for quick retrieval by the computer When it's full up the computer has to go back to the hard drive search for the information it's looking for (how to make italics for example) read the instructions then actually do it In many cases this can mean waiting several minutes between when you push the mouse button to do something and actually seeing it happen on the screen In most cases the delay is more like seconds but when you're trying to work or play a game or watch a CD-ROM delay after delay will drive you nuts!

Eight megs is now the recommended minimum and 12-16 MB is even better Try to get additional RAM included as part of the package price You can always add more RAM at any time but it costs about $60 a meg — plus installation if you don't want to put it in yourself If you're serious about buying a system you can probably swing a deal Remember you can never have too much RAM

Hard Drive Or Hard Disk Or HD

340 MB Hard Drive

The hard drive is the machine that stores all of your software and any stuff you create It's a direct cousin to the "floppy" disks you see people stuffing into slots with the difference that it's non-removable and capable of holding a lot more information All computers being sold these days come with a hard drive, all you're trying to do is get the biggest one possible because general computer rule #1 is the bigger the number the better except when it comes to price.

Seeing "420 MB HD" in an add tells you that the hard drive can hold 420 megabytes of information In terms of typing that's about 120 000 pages Sounds like a lot But not a lot of computer stuff consists of letters to mom and dad Which brings us to general computer rule # 2: no matter how big a hard drive you buy you're eventually going to wish you'd gotten a bigger one

This is an example of the minimum software you're going to want to install in your computer and how much hard drive space it needs

DOS	**6 MB**
Mouse Drivers	**1 MB**
Word Processor	**5-30 MB**
Spreadsheet	**20 MB**
Sound software	**8 MB>**
Video software.5 MB> for CD-ROM	
Windows	**30-40 MB**

Those are just rough approximations, but the total is already around 100 MB and you haven't written a single letter or played one game Start adding all the other stuff that you probably want the computer for — like CD ROM accelerator files games, utilities graphics and data-base software, etc. etc etc and that 420 megs cramps up pretty quick.

So... buy the biggest hard drive you can afford Today's prices work out to about 65 cents a meg — unbelievable when you consider that a 10 meg hard drive cost about $1200 in 1983 Again you can probably swing an upgrade deal with any enthusiastic sales person at the same time you're nudging them for more RAM Remember, you can never have too big a hard drive

Expansion Bus

VESA Local Bus (Vlb), ISA Bus, PCI Bus

This refers to the kind of bus connector the computer uses As with so many computer considerations it basically boils down to speed — ISA is slowest VESA is next and PCI is fastest But which one you can have depends largely on which CPU you're going for and how the computer is built

All your internal cards — video, sound, hard drive controller SCSI controller etc — communicate with the CPU by sitting in slots connected directly to the bus The faster the bus, the faster all the information flying around will show up on your screen

ISA that's Industry Standard Architecture is the most common type of bus for computers Virtually every computer has ISA slots inside because most internal cards are wired to use it.

A good computer, however, will have at least two VESA (Video Electronics Standards Association) Local Bus (VLB) slots because VLB is a relatively recent development specifically designed to bypass the slower ISA bus and communicate more directly with the CPU. You'll usually find only two of these slots in most VLB equipped computers, because most cards don't need the kind of speed a VLB has to offer However, video cards in particular need all the help they can get, so it's normal to buy and install VLB versions of those if you want maximum performance out of your "486"

The newest bus is the PCI (Peripheral Component Interconnect) It's actually just like the VLB but designed to take advantage of the Pentium's super fast 64-bit design Another advantage is that PCI is what everybody calls "Plug n' Play" — which means that any PCI card you put into a PCI slot will be recognized by the computer automatically.. no screwing around with configuration files (but that's another story)

In a nutshell look for at least two VLB slots in a 486 computer, even if you have to pay a little more You'll already find PCI slots in any Pentium machine

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Sony 55 2X drive
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NEC
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RECORDABLE CD
PINNACLE MICRO
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Video Cards and Monitors

VGA or SUPER VGA (SVGA) Color, VLB with 2 MB Video RAM

This is compu-code for what amounts to two separate items in your system — the monitor and the "video card" inside the computer that translates electrostuff into pictures and text for you to look at. SVGA (Super Video Graphics Array) is better because it can give higher resolution images. But not everybody takes advantage of that, so VGA (Video Graphics Array) will serve you just as well.

A more important question to ask is how much Video RAM is on the video card inside the machine. These cards have their own version of RAM on them and ... remember general computer rule #1? Video RAM speeds up the process of translating electronic bumff into pictures and text, while it also lets your computer generate virtually millions of colors. And, as was pointed out in point 4, a VLB or PCI video card will perform the fastest.

Monitors and video cards are where retailers most like to go cheap, because it's the best area in which to make big profits. It's unlikely that a bargain system will sport a good example of either item. Again, nudge the sales person for an upgrade deal while you're nudging him for more RAM and a bigger hard drive. You want at least 1 meg of RAM on the video card, but two is even better and four is the best — but the costliest.

Monitor. The "dot pitch", the picture size, and whether the monitor is interlaced (int) or non-interlaced (ni) are most important.

"Dot pitch" tells you how small the individual dots — or pixels — are that make up the screen. In an inversion of our general computer rule #1, the smaller the number here the better. A large dot pitch value, ".38" for example, generates what you'd generously call a fuzzy picture. A dot pitch of ".28" is what you're looking for. It yields a clear, sharp picture.

Interlaced versus non-interlaced is more complicated. Interlaced is a cheap way of making a monitor. Basically, it means that the electron gun sweeps the screen twice real fast to create a single image — a modus operandus that causes a tiny flicker. The flicker is virtually invisible but after about half an hour at the computer you'll mysteriously feel like your eyeballs are falling out. Flicker is also related to scanning frequency, and some cheaper monitors don't have the capability to operate at the higher frequencies that accelerated video cards work at. When it comes right down to it, just remember this: interlaced bad, non-interlaced good. Unfortunately: interlaced cheap, non-interlaced non-cheap.

Finally there's picture size. Just like a TV, it's measured diagonally. If you measure what you see, you'll find that your 17-inch monitor is only about 15.5 inches across, your 15-incher is about 14 inches and your 14-incher is closer to 12 inches. General rule #1 comes back into play here — the bigger the better. But remember that 14-inch monitors are getting really cheap now, even good quality ones, because it's generally accepted that 15" is the minimum size for reasonable computing comfort. Of course, bigger is better, but the price curiously rises exponentially in relation to screen size. A really good 15" monitor might set you back $650 but an equally good 17" could be $1600 or more. That's $750 for a mere two inches more! Another factor to consider is that as you go to a larger screen, you also increase the depth of the monitor and its weight. Will your desk in the den be big enough?

The monitor is what you'll be staring at all the time you're using your computer, so don't cheap out here. You can assume that the package deal in the newspaper has a crappy video set up, so be prepared to kick in more bucks. You won't regret it.

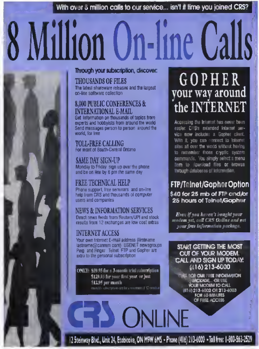
Multimedia

MULTIMEDIA BUNDLE, CD ROM READY, MM (or something)

Generally that means you get a double-speed CD-ROM drive (that's okay), a sound card of some sort (hopefully a 16-bit SoundBlaster compatible), and a couple of really crappy speakers—all installed and ready to go. A multimedia-ready computer is good value. Make sure, though, that the bundle hasn't kicked the price up by more than it would cost you to buy that stuff yourself (maybe $350).

Keep in mind, too, that a good quality quad-speed CD-ROM drive alone costs about $600, a good sound card around $150 and good speakers maybe another $150, and you get some idea of the kind of performance to expect from these cheap, pre-installed multimedia packages.

Continued on page 40



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Rough Guide to Reading Ads

Continued from page ***38***

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It's strictly buyer beware buddy Generally you can expect the cheapest package price to have the worst warranty You pay a premium to buy from those small computer specialized stores, but you'll be glad you did when I mean if you have any problems And don't think you won't. Computer problems rank right up there with death and taxes. Even if all the hardware is working properly software can drive you nuts faster than summer driving behind a Winnebago

Don't expect the salesman at "Mega Warehouse" to help you, or even know how He'll just tell you to bring your machine back so he can send it on an all expense paid 12 week vacation to Korea General computer rule #3 is establish a good relationship with the shop where you buy your stuff You'd be surprised how many problems can be fixed during a 10 minute phone call with somebody who knows what they're selling... and backs it up ❑

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Forget Multimedia, Think Multi-sensory

REDMOND WA APR 1 (TCP) — Sources close to Microsoft reveal that it is planning to add MCI drivers to support the emerging "Scratch 'N Sniff" and "Smell-O-Rama" multimedia standards in Windows 95 Beta tester Keith "The nose" Frechette says he is "anxiously awaiting the first round of AVI files that incorporate this new technology"

Windows 95 beta tester Randy Ranker explained for us how the new technology works "You remember those smell-o disks that were out a few years ago there was a little player and a scented disk you could load that emitted various odors? Since a CD-ROM only uses the bottom shiny side, there's a lot of space for long-lasting scratch and sniff on the top side A separately addressable scratch head and a small fan waft the odor in the direction of the user's (optional connection for hospital-type nose plugs for direct smell feed or for use when your nose is not in line with the CD player Look for the Surround Smell player to be available within a year the scenting units to be available in about two combined with writable CD technology so you can create all the sights sounds and smells of a real experience in a virtual CyberSmell world"

Testers added that once Windows 95 becomes generally available that users should be sure to check the "Best before..." date on the packaging

In a related development Microsoft is urging developers to support Scent Objects OLE. User Mike Wentz commented "I can think of a few smells I'd like to be able to stick in an e-mail message"

Commenting on reports that some Windows 95 beta CDs smelled exactly like celery the sources explained that the CDs with the celery smell are part of the whole Microsoft Natural line "You've already seen the keyboard of course" explained spokesman Ed Bott. "This is the next step It's intended to get you thinking that gee this new Windows is good enough to eat!"

Bott explained that, with the sheer number of CDs going out environmentally conscious testers were complaining about the waste involved in throwing away so many disks That's why Microsoft has decided to use tightly pressed cellulose made from celery stalks for the new CDs After you get a new build you're free to soak the old CDs in a solution of balsamic vinegar and water then slice and add to a salad or soup The red CDs are made from sun-dried tomatoes The white ones of course are simply potato starch If you soak a few dozen for long enough and then distill the results, you might get a pretty decent vodka.

But not everyone is happy with the choice of scents slated for release Mike Wentz commented "I know MS's market research is great but I think the CDs would sell even better if the disks smell like Doritos" Other users agreed that additional flavors such as beef jerky chocolate and cherry could really boost MS sales

Sources close to the company revealed that the company is planning a new marketing slogan "Microsoft Natural CD —What Do You Want to Eat Today?" ❑

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OS Showdown, Part 2

Continued from page **33**

only issue, Warp would come in with flying colors Unfortunately compatibility with Microsoft s software is a moving target. As mentioned earlier, Win32s is currently a problem other issues such as OLE2, WinG, and Windows 95 long filename support add to the increasing likelihood that the next generation of Windows programs will introduce hassles for Warp users

The scenario is much worse for Mac owners. The much ballyhooed "Soft Windows" software emulates only a 286 computer most of today's Windows programs (not to mention Warp) won t run on this configuration. Hardware solutions that promise Intel compatibility are slightly better, but still likely to induce more hassles than they re worth We ve watched emulators come and go for over a decade, for Commodore 64 Atari Amiga, Macintosh NeXT PC and other computers, and the story is always the same ultimately you end up disappointed when this or that new — and essential — program doesn't work

And yes, we are aware that the Mac and Windows 95 would score poorly on their ability to run Warp applications for what it's worth.

Software Availability and Developer Support:

Warp (6)
Macintosh (5)
Windows 95 (7)

This is practically a trick question When you look at it objectively, Warp has over 2 000 shipping 32-bit applications Windows 95 has next to none Further, Warp can run most existing DOS and Windows 3 1x apps, as well as its native OS/2 applications

Also IBM has very aggressively priced its OS/2 development system, effectively providing a development environment worth thousands of dollars for a couple of hundred bucks Many smaller developers who can't play in the big leagues of the Windows market still have a reasonable chance to develop a market leading application for OS/2

Realistically though we expect to see plenty of Windows 95 applications released within 60 to 90 days of the operating system s release as developers scramble to implement last-minute changes and check compatibility (Some beta testers were surprised to see a message that appeared on the startup screen of their Windows 95 M7 beta release on March 1st advising them that " ..this pre release version of Windows will stop working on March 31 1995 You will not be able to use this pre-release version after that date ")

The Mac also has a great selection of top-quality applications especially in the fields of publishing, graphics multimedia and music.

Graphical User Interface:

Windows 95 (8)
Macintosh (7)
Warp (6)

We expected to see the Mac win this one hands-down and indeed, the Mac is still ahead in certain areas (for example the relationship between a file and its symbolic icon is easily broken in Windows 95), but generally, Windows 95's greatest improvements over Windows 3 1 are in this area. Windows 95 provides easier access to CD-ROMs, easier program launching resolution switching, window and network management, file opening and shortcut creation than the Mac does And these are the things that we think most users will use every day

System Robustness and Stability:

Windows 95 (9)
Warp (9)
Macintosh (5)

When I mentioned in the last issue that our tests of the Mac OS suggested that it was less stable than its PC cousins I received several pieces of mail suggesting that I must be doing something wrong and more than a few that agreed with me, too Let me reiterate that these tests were not on one machine in one location They represent many tests on many models, in an actual production environment, maintained by a full time Mac and PC troubleshooter using only mainstream commercial apps (Photoshop Illustrator, PageMaker, Xpress, etc.) One or more crashes per machine per day is not uncommon on the Mac, while Warp and Windows 95 almost never crash In four months, I ve seen one unexplainable crash of Windows 95 and zero such faults under Warp Despite its other foibles, Warp is very solid once installed and configured correctly

Ease of Upgrading from DOS:

Windows 95 (9)
Warp (8)
Macintosh (NA)

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(Refer to part one for more info on the upgrade process.) It is worth mentioning that our opinion of a realistic minimum for running Warp has altered slightly. We've been testing Warp on an IBM 486DX/33 with 16 megabytes of RAM and a ThinkPad DL2/50 with 12 MB RAM and it's clear that Warp loves RAM. It just flies on these configurations (at about the same speed as Windows 3.1 or Windows 95) despite the fact that these machines are both well below the 66 MHz level CPU we recommended last issue.

We list the Mac as "not applicable" here but, of course, there will be cases where DOS users will sell their old boat anchor and move up to a Macintosh. In this case, we think most DOS and/or Windows users would rate the MacOS as "easy to very easy" to adapt to.

Ease of Upgrading an Existing System:

Macintosh (9)
Windows 95 (8)
Warp (4)

The Mac upgrade went as smoothly as we could ever have wished for: reverting to an older system software release was also unbeatably easy. If the install program hadn't installed a number of unnecessary files on our drive, we'd have awarded Apple a perfect "10" for the process. Windows 95 is almost as slick and considering the almost unimaginable complexity of supporting the wide array of PC configurations out there (there are approximately 90 Macintosh models out there, and easily ten times that many PC configurations), we think it's a near miracle that it works as well as it does.

Ease of Reverting to DOS/Windows:

Warp (7)
Windows 95 (1)
Macintosh (NA)

We put this category in when we discovered how incredibly difficult it was to go back to DOS and Windows from Windows 95. No kidding, you can delete all the partitions, reformat the drive, and it STILL doesn't work (Windows Setup fails with an "Error in Kernel" message). It's worth noting that this invisible evil also makes it virtually impossible to install Windows 3.x support for Warp after Windows 95 has been installed on the same machine. We doubt that this is evidence of a heinous plot, but it is troubling. This is something we hope Microsoft fixes in the release version of Windows 95.

On a "pristine" Warp installation, installing DOS and Windows support after Warp was up and running was a little easier, but still far from trouble-free.

We encountered two dialog boxes that lacked Cancel buttons but wouldn't respond or go away when we clicked "OK." (One taunted us with an "insert a disc into CD-ROM drive G" message, the other announced that "System setup is complete — OK".) Somehow we managed to get past these "endless loop" dialogs, only to be faced by two "Config.sys" errors after we restarted.

We kept at it, editing our Config.sys file and installing a number of updated drivers from AST's forum on Compuserve and IBM's Service Pack update. We now have Warp running flawlessly, with full Internet connectivity and PCMCIA modem support. Hurray for happy endings! ❑

Honor Roll

Uh-oh. It's time to give out the awards. Okay, here goes.

Easiest to install	Mac
Easiest to use	(tie) Mac/Windows 95
Best multitasking	Warp
Most progressive GUI	Windows 95
Best printer support	Windows 95
Best multimedia support	Still testing!
Best CD-ROM support	Mac
Best plug and play support	Mac
Best font handling	(tie) Mac/Windows 95
Best modem support	Windows 95
Best Internet support	Warp
Best network support	(tie) Mac/Windows 95
Best scripting language	Warp
Best bundled applications	Warp
Best out-of-box experience	Mac
Best SCSI device support	Mac
Best PCMCIA support	(tie) Warp/Windows 95
Best video display support	Windows 95
Best MIDI support:	Windows 95
Best audio support.	Windows 95
Best floppy disk support:	Mac
Best keyboard-shortcut support.	(tie)Warp/Windows 95
Best typographic controls	Mac
Best color management	Mac
Best technical support	Warp

Booby Prizes

Most installation problems:	Warp
Most de-installation problems:	Windows 95
Least robust system object model	Windows 95
Least stable	Mac

For further reading:
See back issues of *The Computer Paper*
Articles on System 7.5 appeared in May 94, Sept. 94, Mar. 95
Articles on OS/2 and Warp appeared in Sept. 94, Nov. 94, Mar. 95
Articles on Windows 95 (AKA "Chicago") appeared in July 94, Dec. 94, Mar. 95

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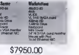

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MULTIMEDIA MAGIC

Upgrading Your Computer and Your Child To Multimedia

BY MARTIN P. WATERMAN

If you are a parent thinking about the promise of a multimedia computer, you are probably hoping that the children will become brainiacs at school and a source of pride for the family. On the other hand, you might also fear that they will regress into game addicts who destine the family for therapy and counselling. But I digress.

Most computers being sold today are multimedia ready, but if you already have a perfectly good PC, you might find it cheaper to just get a multimedia upgrade kit. For example, I decided not to purchase a new multimedia computer, since 90 percent of my computer time is spent word processing (although I do like to listen to music CDs in the CD-ROM player while I work). My 486 DX/33 with 8 MB of RAM is more than adequate for my primary work, so it did not make sense to purchase a new machine.

Value and Price

Before you discount buying a new multimedia PC altogether, you should consider the value of the total package. Many computer manufacturers are offering multimedia systems that include many titles. If the included titles are ones that you already factored into your upgrade budget, you might find that the money you save by not having to buy those "free" CDs will partially offset the price of a new computer. Of course, if the "free" titles are ones that you don't want, they won't hold much value.

Moreover, having a second computer is worth considering if you have eager children. I know two parents that, after upgrading their computers into multimedia machines, found they have lost much of the use of their computer. They often have to wait in line behind their children to do their own work!

Companies are realizing that there are still many computers like mine without multimedia capabilities, so they are offering full multimedia upgrade kits that include a sound card, CD-ROM drive and a variety of CD-ROM titles.

The type of CD-ROM upgrade you choose should reflect the balance you want between entertainment and educational titles, so that you can try to upgrade your children to have the values and beliefs consistent with your own (good luck!)

Some CD-ROM kits are either fully or partially aimed at the educational market. One of the promises of the CD revolution is the educational and research capabilities of the information packed disks that will make schooling and homework easier for our children. This is especially welcomed by those parents who choose to teach their children at home.

A majority of titles you will run into fall into the "edutainment" category.

Edutainment and Choosing Titles

What exactly is Edutainment? It is supposed to be a combination of education and entertainment, with the result that your child will find learning interesting. There are some excellent edutainment titles. However, beware: many edutainment titles are neither educational nor entertaining.

Before you look at multimedia upgrade kits, spend some time thinking about the kind of titles you want to have and the age of your children. If a certain multimedia kit does not have the titles that you want, price them separately. Purchasing CD-ROMs separately can become expensive, so make sure you are getting a kit with many of the titles that you want and need.

Your Child's Dreams, Your Worst Nightmare?

In writing this article, I was blessed since I knew of several parents in the market for CD-ROM upgrades. The first piece of advice I can give is don't let your child rule the selection process. This may sound cruel, but your child will naturally gravitate to those kits with the most games, coolest joystick and biggest and loudest speakers. You, of course, will probably gravitate toward something with more educational titles.

But you should find out about your children's favorite titles and see if you can find a kit with at least a few of them. This will save you money down the road, when you finally capitulate to the unrelenting begging.

Variations On the Upgrade Kit

Most multimedia upgrade kits come with a CD-ROM drive and sound card. If you already have money invested in a top of the line sound card, you may want to just get a CD-ROM kit. If your sound card has a CD-ROM connector, make sure you pick the right model of CD-ROM drive. That way, you can plug the drive directly into the sound card, instead of having to install and configure the separate CD-ROM interface card.

Another option is an external CD Drive, which may connect to a special interface card, or may just be plugged into your computer's parallel port.

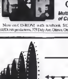
Like full multimedia upgrade kits, CD-ROM-only kits can also be bought with or without bundled CD titles. For example, Reveal's Internal CCD24 kit comes with almost 20 titles, including Grolier's Multimedia Encyclopedia, New Student Writing Center, Space Shuttle and 3D Body Adventure.

An Installation Experience

You might be wondering if you could install one of these kits yourself. I have found it is not difficult as long as you (a) read the directions and (b) follow them. That being said, I did experience some problems during my installation. They weren't related to the kit, but illustrate what can happen when you start poking around inside your system.

I had no trouble installing the sound board or the CD-ROM player, even though I have large hands so that maneuvering around inside the machine was a bit tricky. I loaded the software and everything seemed to work okay.

But when I rebooted I got an error message concerning a drive conflict. I could



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press F1 and exit setup and everything would work fine However I did not want this error message to keep haunting me so I called the tech support number for my computer The machine was over three years old and the Award Bios can get corrupted when adding a CD ROM Tech support s advice was to unhook the battery and then reset the BIOS Yeah right

Well the technician talked me into it so I went into my BIOS and pressed screen print to record the current settings Incidentally it is my understanding that everyone should do this in case their battery dies I shut down the power and opened up the case The battery wires plugged into the motherboard are practically under the power supply It took me a minute to unplug it I waited the half hour to 45 minutes recommended and then plugged it back in which took almost 10 minutes of maneuvering Then, I booted up and got the same error message. I called tech support again and the technician suggested that I may have unplugged one of the other two drives.

I opened the case again and found that the 3.5 inch drive was okay but the 5 25 had a loose power cable I reattached the cable and everything worked fine Hmmph

But I began getting another error message concerning a start up sound file I finally tracked down the source of the problem — a program that I had run previously and since deleted Unfortunately, it had left its information in the Windows ini file. On startup, the computer would search for a file and then give me a message that it was not there. After getting sick of the error message I finally tracked down the cause and deleted it.

Two Popular Choices
Two companies you may encounter in your quest for the upgrade kit are Creative Labs and Reveal Reveal has become a familiar name because they have kits designed so that anyone can install popular upgrade items such as internal modems, memory, hard drives, tape drives, and video cards. You'll find Reveal products widely available across Canada The same holds true for Creative Labs which, of course, is best known for its Sound Blaster sound cards

Both upgrade kits sell for about $400 Despite their near identical prices cost became a consideration since I knew I would have to invest in some entertainment CD-ROMs if I went with Digital Schoolhouse

I eventually chose the Reveal MFX 03 because I felt that it struck a balance between pure education and pure entertainment. I'm glad I did since all the titles seem to be getting their share of use The 7th Guest computer game has probably spent more time in the CD-ROM bay than all the other titles combined. Therefore it is a good thing that I did not have to purchase these or other titles separately I had anticipated there were some mandatory game titles to have as part of the upgrade, since the neighbors' children had their favorite titles the keeping up with the Jones' phenomenon was at work.

If you would like a large selection of educational titles, the SoundBlaster Digital Schoolhouse package may be for you I confess, I factored my own needs into the equation when I went shopping for a CD-ROM upgrade and the titles available in the Sound Blaster (and one made by Diamond Multimedia) upgrade kits did not meet my needs Another reason for my choosing the Reveal was its installation videotape

Once you install a piece of computer equipment with a well produced videotape you may not want to use a manual again You can stop the tape at any time during your installation and I find that the entire exercise is faster and more enjoyable. I wish every piece of add-on equipment came with a video.

Conclusions
In the end my choice for an educational CD ROM upgrade kit rested on two factors. The first was ease of installation Reveal s videotape not only took me step by step through the process, but it also gave me the confidence to do the necessary surgery on my computer

The other factor that influenced my decision was the CD-ROM titles For my needs the best balance between education and entertainment (and yes edutainment), was offered by Reveal.

Digital Schoolhouse has a great selection of educational titles, but be prepared to have to fork over some money down the road for games your children will surely want.

A couple of caveats Many of the titles in both kits were lackluster And keep in mind that the titles that come with these kits do change from time to time, and this is a competitive section of the market. In other words, comparison shop ❑

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Portable Multimedia Maturing

BY GEOF WHEELWRIGHY

The age of the multimedia portable computer is here. The latest breed of notebook computers come with built in speakers, microphone and stereo sound capabilities as standard equipment. Many now add CD ROM drives directly into the laptop design or include it as a bolt on option.

On first inspection, this might seem a vast overbuilding of computer resources for a portable computer. But a brief tour through any recent computer magazine will bring home the clear message that CD-ROM software is where the market is moving. If your system doesn't have it, you are going to get left out of the CD software boom.

Even notebook computers cannot afford to miss out on CD-ROM software, or at least that's what several major notebook computer manufactorers would have you believe. And that's why they are commonly offering three routes to using a CD-ROM drive with your notebook computer.

Multimedia in One Box

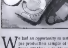
The quickest and latest way to start using a CD ROM with a notebook computer is to buy one with a CD built into it. Manufacturers such as Panasonic, IBM and Toshiba offer notebook systems with built-in CD-ROM drives, although there is a considerable cost in taking this route to portable multimedia computing.

These systems tend to be considerably more expensive, are heavier to carry (due to the added weight of the CD ROM and the extra electronics needed to drive it) and draw more quickly on the batteries of a notebook system than models without a CD-ROM. For example, IBM's ThinkPad 755CD is about $1,700 more than the ThinkPad 755CE, and weighs about a pound more.

Nevertheless, for anyone who really does need to use CD-ROM software while they are on the move, systems such as the 755CD,

Continued on page 51

Raven CD Drive



We had an opportunity to taste a pre production sample of the Raven CD-Note, a double-speed battery powered CD-ROM drive from Serviceworks Distribution Inc.

The 380 gram (0.84 lb.) unit operates on six AA batteries or AC Adapter. It comes with a PC Card SCSI interface, and will also connect to a desktop machine's SCSI 2 interface through a standard cable (not included). The CD Note supports Photo CD multisession, XA and CD-DA (audio) specifications.

We found that this attractive unit installed easily and worked flawlessly under Windows 3.1. It also worked under Windows 95 beta, although the driver first had to be installed under 3.1, then the OS upgraded to Win 95 in order for it to work. Support for OS/2 is being planned but the Serviceworks representative couldn't say when it would be available.

The Raven CD-Note is being sold now, with an estimated street price of $499. ☐

Contact: Serviceworks Distribution 604 273-4453 (BC and national) 905-712-2000 (Ont) 514-344-4044 (Que.)

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MULTIMEDIA MAGIC

Children's Multimedia Titles Combine Fun, Education

BY PEDRO ARRAIS

If you've been down to your local PC store recently, you've probably been pleasantly surprised – if a little overwhelmed – by the number of titles aimed at the minds of your young uns.

Following are some of the better titles which have come across our desk in the last little while. Don't treat this as a best-buys list – there are many titles we didn't include that are just as good. Think of them as a representative sample of the programming that's available to educate and entertain young minds.

Read with Me 1&2

From WordPerfect Main Street
Recommend Ages: 3-7
System requirements: 486SX 4MB RAM 1MB hard disk space Windows 3.1 SVGA double speed CD-ROM, mouse, sound card and speakers

Some of you who work in offices may be quite familiar with WordPerfect as one of the top word-processing programs around. This educational title is its first foray into the competitive arena of children's edutainment. Read with Me is a pre-reading program which demonstrates the relationship between letters, pictures and sounds.

On some activities the children can play by themselves, with a friend or against the computer. There are five activities to choose from, offering different levels of difficulty. Treasure Hunt requires matching pictures to words. Word Traveler allows the child to create simple words, with the computer supplying speech synthesis to pronounce the words and save them in a personal dictionary. Catch-A-Match is a drill and practice program employing colors, letters, sizes, numbers and shapes.

The Coloring Box is just that, with 15 colors, 24 shapes and 68 graphics at the child's disposal. The most attractive activity, from a visual and audio standpoint, is Watch With Me, which provides ABC and Nursery Rhymes (26 old time favorites) in video segments. With the exception of this segment, the graphics are not quite state of the art and there are no "secret" objects to click on to between activities (and within the activities themselves). Notwithstanding these drawbacks, it is an entertaining package for those preschoolers in your household. Comes with a 60 minute bonus video.

Contact: WordPerfect, 1-800-451-5151

Harry and the Haunted House

From Living Books
Recommended Ages 3-8
System Requirements: Dual Mac/Windows CD-ROM For Windows: 386SX, 4MB RAM SVGA Windows 3.1 sound card and mouse. For Mac: System 6.0.7 or higher 256 color monitor 4MB RAM

For those of you unfamiliar with previous Living Books products, be prepared for an excellent product, both the CD and the accompanying book. All titles are essentially books that you may read to your children. The difference is that the characters come alive in an interactive environment in a way not possible in printed form. Characters talk in English or Spanish, and appropriate background music adds to the smooth animation of the whole program. You have the choice of allowing the computer to read or letting your child "turn" the pages all by themselves. Clicking on the different objects on each page will reveal some humorous results. The only shortcoming to the program (and to other "readers") is that the children will grow disinterested in the "book" after several readings because nothing new happens and everything is predictable. However, if you want a state of the art reading book, it is hard to go wrong with this one. One unusual feature is that you can actually play songs found in the program on your home stereo.

Contact: Living Books, 1-800-521-6263

Stowaway!

From DK Multimedia
System Requirements 386SX or better 4MB RAM Windows 3.1 MPC compatible CD-ROM SVGA sound card mouse and speakers

Ever wondered what it would be like to live, rather than read about history? Stories are one thing, but experience is another. Enter Stowaway, a slice of life aboard a 18th-century man-of-war. And slice it is too, for the program is a multimedia version of Stephen Biesty's incredible cross sections which illustrate his numerous books.

The CD version takes it that one step further, with narration over and above the written text and realistic audio that replicates the roar of the cannon, the screams of wounded seamen and the creaking and groaning of the ship at sea. The exploration can be leisurely and random, with a wealth of information to be gleaned from the day-to-day activities of the crew (check out the food), to the journals of the different ship's personnel. Keep an eye out for the stowaway while you are about and you will be rewarded handsomely.

There are more than 400 pop-up screens embedded in the 10 cross sections which can take you from the lowest hold all the way up to the highest mast. You will learn about maritime customs from a bye-gone age. Excellent graphics abound and the interface is very easy to learn. Living history is certainly much more fun than just learning it. But excuse me, I think I see the Spanish off our port bow. Ahoy! Man the Cannons!

Continued on page 50

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Children's Multimedia Titles

Continued from page 48

Contact: DK Multimedia, 1-800-387-0141 (Ontario/Quebec excluding NW Ontario) 1-800-387 0172 (all other Provinces and NW Ontario)

Early Math

From Sierra
Recommended Ages 3-6
System Requirements 386SX/20 4MB RAM 9MB of hard drive SVGA sound card Windows 3.1 mouse. Also available on Mac format.

Targeted at preschoolers who have not learned to read, Early Math is a progression of math activities designed to appeal to your child's present stage of interest and development. There are six different activities in all, with different themes such as counting sheep, fish tank and pattern bridge. Each activity adds spice to what is essentially a drill and practice program. There are different levels in each activity which help keep the problems presented solvable. If your child has problems Loid will offer advice in the form of a gentle hint. There is also a Parent's Screen, where you can access your child's specific performance statistics and review the levels which they have attained. The major downfall of this program is the poor graphics which look as if they belong to a game from five years ago not 1995. This is even more surprising given the amount of memory the program takes up in your hard drive. Apart from that, a decent beginner game for most

Contact: Sierra, 1-206-562-6050

Freddi Fish and the Case of the Missing Kelp Seeds

From Humongous Entertainment
Recommended Ages 4-8
System Requirements: 386/33 (486 recommended), 8MB RAM, SVGA, Windows 3.1, double speed CD-ROM sound card, mouse and speakers

If your child liked Disney's The Little Mermaid they are going to love this program. Freddi is a lovable fish whose world is filled with friends to meet and an adventure to solve for his lovable Grandma Grouper. Freddi has to solve problems and use logic to find the missing kelp seeds to feed all the fish in the ocean. There are villainous sharks (nothing scary) trying to retrieve the seeds before you can, and Luther, your sidekick, helps you along on your quest. The stunning graphics are the result of hand drawn animation and set a benchmark for other software programs to follow. Point and click anywhere and something happens. Everybody seems to sing, dance and talk. The hardest part was dragging my wife away from the screen, as she became absorbed by the plot and proceeded to solve it. There are hours of fun to be had by the whole family. Also comes with an enclosed 32 page activity book for coloring etc., and other trinkets. If your children like playing hide and seek (and who doesn't?) and other adventure games, this program is a must buy for the home software collection.

Contact: Humongous Entertainment, 1-206-486-1212

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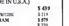

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Portable Multimedia Maturing

Continued from page **47**

the Panasonic CF41 and Toshiba T6600C offer an unparalleled combination of convenience flexibility and power

IBM puts the CD-ROM tray at the front of its ThinkPad 755CD, while Panasonic's CF41 CD-ROM is unusually located under the keyboard. Toshiba's T6600C, meanwhile, is a larger system aimed more at the wall-plug-powered portable market and features a CD-ROM mounted at the right hand side of the system

Commence Docking

A more common approach to putting a CD-ROM to use with your notebook computer is via a "docking station" which is a special enclosure into which you plug your notebook computer to give it desktop computer-like capabilities Docking stations commonly offer room for the use of less expensive standard desktop CD ROM drives (and the "controller cards" needed to allow the PC to work with the CD-ROM)

For those who only need to use notebook computers with their CD-ROM drives when they are at a single location (such as the home or office) CD-ROM drives mounted inside a docking station are a good choice Notebook systems with internal CD-ROM drives cost considerably more than a standard notebook computer with a standard CD-ROM mounted into a docking station Having said that it can be even cheaper to buy a desktop computer and CD ROM — and leave that at the home or office to run CD ROM software — than it is to add a docking station and CD-ROM drive to your notebook system

Cards and Sockets

The final options for adding CD ROM drives to notebook computer systems come via either connection to a PCMCIA (Personal Computer Memory Card International Association) standard expansion card slot or your notebook computer's parallel printer port Most new notebook systems will offer PC Card slots (usually two) and notebook add-on suppliers offer connections to CD-ROM drives via PC Cards that contain a high speed Small Computer Systems Interface (SCSI)

And the simplest way of adding external CD-ROM drives to any notebook (or desktop) computer is via the computer's parallel port A wide range of manufacturers now offer parallel port CD-ROM drives These devices provide a built in "parallel to SCSI converter" that not only convert the printer interface on your notebook computer to SCSI for use with the CD-ROM drive but also provide a "pass-through" printer connection so that you can still use your printer with the parallel port

One word of caution with these last two options however If your notebook uses an internal hard disk that is controlled via a "hard disk controller" that also uses SCSI technology, you may well have trouble adding a second SCSI controller into the system Most PCs are set up to recognize only one SCSI at once. Adding a second SCSI controller (such as a PCMCIA SCSI card or a parallel to SCSI converter) may cause the computer to ignore either the internal hard drive or the CD ROM ❑

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MULTIMEDIA MAGIC BOOK REVIEW

Legalities of Multimedia Publishing Explored

BY KEITH SCHENGILI ROBERTS

Title: *The Software Publishers Association Legal Guide to Multimedia*
Author Thomas J. Smedinghoff
Publisher Addison-Wesley Publishers Ltd.
Details: Softcover, 640 pages 1994
Price $57.95 (Comes with one 3.5" high density floppy diskette)

Multimedia software currently comprises the hottest and fastest selling types of programs around To successfully publish new multimedia software, developers must navigate the legalities behind producing, protecting and marketing multimedia software Whether you are working on the World Wide Web or pressing your own CD-ROMs this is an excellent guide to the legalities surrounding multimedia products.

Designed for people interested in developing and publishing multimedia applications, this comprehensive book tries to cover all of the legal issues behind the development of multimedia, and how to protect your intellectual property once it has reached the market It is written in a very clear and understandable style by American lawyer Thomas Smedinghoff, who works as counsel of intellectual property for the Software Publishers Association

Multimedia is fraught with more legal landmines than any other form of software. The picture or piece of music you want for your multimedia product is almost certainly somebody else's intellectual property, and this book sets out the boundaries and protections the law affords Multimedia also tends to call upon talent outside of traditional software development, such as using film or developing music specific for the product. This book covers it all.

The book is divided into three sections, covering all aspects of the production of multimedia First it looks at the pertinent laws referring to multimedia, including what you should know about copyright and trademarks It also takes a detailed look at the type of legal situations you may find yourself in while developing your multimedia product including licensing the rights to use characters, pictures, or music, and how to deal with outside contractors and entertainment unions Once your product is out the door, there's a good section that deals with how to protect your wares including the protections copyright and trademark laws afford to a product's producer The book contains lots of checklists, template agreements, and plenty of other legal tools to help the multimedia producer The diskette that accompanies the book is filled with these sample contracts and agreements in both ASCII and WordPerfect file formats.

This is a very comprehensive book on the subject of the law and multimedia While the laws and procedures in the book are American, many of them (but not all!) apply to Canadian jurisprudence as well Expect to find better and more detailed advice from a lawyer — at a much higher asking price than the cost for this book. ❑

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Delrina Ponders Computing's Direction

BY GEOF WHEELWRIGHT

Mark Skapinker – Delrina President

You probably know Delrina as the purveyor of a fax software package called WinFax But the Canadian software company has become a lot more than that since its establishment seven years ago

Fueled by the success of WinFax and complementary products It has achieved a compounded annual growth rate of more than 100 per cent in each of the past four years, arriving at the $102 million mark last June And with more than 600 employees and offices in Toronto, San Jose, Washington the UK, France and Germany, this once-little Canadian company is getting lots of attention

A Comdex Keynoter

Nowhere was this more evident than at January's Comdex/PacRim '95 show in Vancouver, where Delrina co-founder and president Mark Skapinker shared the keynote speech stage with British Columbia premier Mike Harcourt, who told Skapinker just how important an industry the information technology business has become for Canada's Western-most province.

More than 1,400 attendees heard Skapinker define the Internet, Microsoft's Windows 95, and the rise of consumer-oriented software as a combination which

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Roots In The Consumer Market

If Skapinker sounds like he's used to talking to consumer audiences, it should come as no surprise that his roots are actually in the Commodore 64 consumer software business. In the early 1980s, Skapinker was director of product development at a Canadian company called Batteries Included which produced, among other things, a well known Commodore 64 word-processor called Paper Clip. The company was eventually acquired by US-based Electronic Arts.

After the sale, Skapinker got together with fellow Canadians Bert Amato and Dennis Bennie and American Lon Ryan, who was at the time head of sales at Borland. The four jointly established Delrina in 1988 and managed to drag many of the best and brightest of their Batteries Included colleagues to work with them on developing products for the new company.

The Delrina Approach

Delrina is best known for WinFax, but has actually built the company around three key products. The first, of course, is WinFax and its associated applications (including WinCommPRO communications suite released late last year).

Second are the PerForm and FormFlow electronic forms software applications that allow people to design, complete and route forms electronically. Third is Delrina's screen saver business, which is built around its "Intermission" proprietary screen saver engine. Intermission is used to deliver the company's Opus n' Bill, Far Side and Dilbert screen saver collections.

In developing these businesses, Skapinker says the key has been identifying and understanding the trends that he thinks will have the greatest impact on PC computing.

"Today, we strongly believe that there are four dominant trends that will have such an impact, and that our existing products are well-positioned to not only take advantage of the emerging technologies, but also continue to appeal to the mass market," he says. "The four trends are the increasing popularity of Windows, the widespread adoption of PC communications, the growing use of computers in the home, and the maturation of the PC industry."

He is particularly hopeful for the opportunities presented by Microsoft's Windows 95. "The timing for the release of this new operating system is ripe," says Skapinker. "The installed PC network base in the business world continues to grow dramatically, resulting in the rapid acceptance and deployment of technologies in mainstream business applications, such as electronic mail, electronic forms processing and other information sharing products like Lotus Notes."

Delrina has been working with Windows 95 in Beta test since its early days as Chicago, and promises heavy support for it. "Although it is difficult to be all things to all people, it (Windows 95) is already being positioned as a solution for small businesses, corporations, home offices, new computer users and power users," he says.

Another area where Delrina is investing heavily is in Internet browsing, navigation and transaction tools, which Skapinker says will be vital to any commercial development of the net.

Continued on page 56

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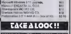

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Delrina Ponders Direction

Continued from page **54**

"In the area of banking and commerce, many electronic banks are opening and many traders are open for business," says Skapinker. "But while they are calling for your business, you must ask yourself how safe they are. Internet is hacker city. It is literally a nerd's haven just like the Wild West was a haven for outlaws and outcasts. Last year, when a hacker broke a never-broken security code, the solution was out on the net within a day worldwide."

For this reason, Skapinker is advocating caution on the subject of Internet development. "It's not that the so-called bankers are not trying their best to create the most secure banks and it is not that these banks are not secure, but rather that the 'outlaws' have the place surrounded. The hackers are challenged by the prospect of breaking in," he suggests. "In the meantime, until it becomes socially unacceptable to break banks on the 'net, security will not be adequately dealt with."

All of which neatly gets around to what Delrina itself is doing in the Internet. "Delrina's answer to easy Internet e-mail is Delrina Internet Messenger (included with the company's WinCommPRO communications suite)," he says. "In the future you can expect to see a whole suite of Internet products from Delrina, including electronic transactions when appropriate, and very easy yet powerful, tools."

Skapinker's next big area of development is in the consumer market, where he expects to heavily leverage his pioneering experience in the Commodore 64 market. "This is not the first time we have been through an explosion of uncontrolled home software," he recalls. "In the early 1980s, the prices of the so-called home computers of the day dropped to the point that they entered the mass market. The marketers of these products created the renowned software guilt ads: 'If you don't buy this new home computer for your child they will not succeed in school or in life.' The only problem was that most of the software at the time was of extremely low quality and much of it required specialized hardware to run."

Skapinker warns that manufacturers and dealers must beware of this happening again. "Word on the street now is that about 30 per cent of CD software is returned because users cannot get them to work," he says. "All the new computer users are now sitting in front of their new computers and the same rot is starting to happen – the same stories as in 1983. I believe we are at the crossroads of the consumer market: either the software market will stabilize and give its customers a way of being comfortable with the choices, or we will have a similar implosion of the market as we did 10 years ago."

One product that Delrina is releasing early this year to address this concern in the fax software market is Delrina WinFax Scanner. "We know that the most frustrating aspect of computer faxing that most business users describe is not being able to fax a piece of paper using WinFax," says Skapinker. "So we found a reliable hardware manufacturer and will be launching a smaller personal scanner to be called 'Delrina WinFax Scanner' that will be priced lower than the cheapest fax machines (at around US$300). It will be marketed directly to WinFax users." ❑

Multifunction Copier/Printer/Faxes And More

The Teledocument Appliance

BY JEFF EVANS

Many offices are cluttered with a large number of single purpose gadgets printers faxes modems photocopiers and scanners It should be possible to combine these functions into one device hopefully saving overall costs as well as desk space Here are a couple of the early contenders

Xerox 3006
Xerox has recently released their 3000 series of multifunction devices, and we had a chance to get our hands on the 3006 model. This device looks like a laser printer but is actually a 300 dpi inkjet with fax, copying and optional scanner capabilities as well The internal 14,400 bps fax (Group 3 compatible) can send pages from a 35 page-capacity buffer in as little as 6 seconds per page It is also a sheet fed copier (a significant limitation for those who need a flat bed copying surface for images bound in books or magazines) The 3006 is cleverly designed to combine these functions, and is quite easy to install, using the good quality included software A scanner function is offered as an option but was not available to us at the time of the review Scanning with the potential to include optical character recognition and image capture with the existing list of features, would be an intriguing further extension to this product's usefulness A well designed, productive and pleasant to use system

Contact Xerox 416-229 3769

QMS 2001 Knowledge System
A similar system to the Xerox 3000 series, but one which has been on the market for nearly a year now the QMS 2001 Knowledge System was originally released in two versions one with an included PC and one without. Price was a considerable barrier to the initial release, as the system was more expensive than buying its component devices separately With a drastic price reduction and (this time around) easier setup and software installation the Knowledge System has many good features

Printer resolutions range from 300 to 400 to 600 dpi print speed is a respectable 6 ppm PostScript fonts are supported with the aid of Adobe Type Manager, the copier function takes advantage of its Windows interface to allow up to 99 copies of a scanned document and the included Hayes compatible modem supports Group II faxing at 9600 bps Altogether, a capable multifunction device for the home office with the robustness and good engineering quality expected from QMS ☐

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Lasers Set on Big

BY JEFF EVANS

Personal laser printers are amazing price/performance value for the individual user without a doubt. Yet, one of the chief trends in computing is towards connectivity and when you have to provide a printing solution to a large number of users, or users with extremely demanding requirements, the personal laser printer begins to run out of gas.

Once you are dealing with a large number of users, requirements skyrocket: you need elegant, fast networking support, software that allows for remote diagnosis, repair and surveillance of printers on a network, large buffers for jobs in the print queue, much higher printing speeds to process high volumes of work, and so on. The $450-$800 "commodity" laser printer just won't do the job. It's not smart enough, not fast enough, not network-friendly enough.

Several companies have carved out a major niche for themselves by providing "enterprise printing solutions" built around sophisticated, powerful printers. We looked at a few, for the purpose of contrast against the low end devices.

Lexmark Optra LX

This is one of a range of LX lasers by Lexmark, a company that was once owned by IBM, but which was sold off to private investors a few years ago. The Optra LX is one of a new generation of printers developed since that sale.

We found the Optra a dream to use. Installation of its Windows software was simple; the Optra offers a software system called Markvision which allows for remote monitoring and diagnosis and control of the printer on a network.

Genicom 9170 with Duplexer

This is a 17 page per minute workstation printer that connects via SCSI interface to a workstation and offers 600 dpi resolution. It is rated for a monthly duty cycle of 50 000 pages, or 10 to 15 times the normal capacity of a personal printer.

Genicom 9080

An 8 ppm, 10 000 page per month, ledger size capable (11" by 17" paper) printer, also designed to connect to workstation on a network via a SCSI 2 interface. ❑

More Inkjets

In our February Inkjet Printer Survey, we named the Epson Stylus Color as Editor's Choice. Due to late arrivals or lack of space, we weren't able to include a few very capable inkjet models. If you want laser printer resolution, but you need color on your desktop, look at these inkjet alternatives:

Canon BJC-4000

The Canon BJC-4000 was only a hair less impressive than the Epson Stylus Color. The Canon has maximum 360 by 720 dpi resolution in B&W, 360 by 360 dpi in color vs. the Epson's higher 720 by 720 dpi resolution. However, the Canon is cheaper, lighter and more compact, and in all other respects (driver software, ease of installation and use, speed, colour output quality) at least matches the Stylus Color. An excellent alternative.

Lexmark ExecJet IIC

The ExecJet IIC is an exceptionally well designed color or B&W inkjet, optimized for easy and flexible Windows performance. Its driver software design is extremely clever, and allows the printer to inform you of its progress through a job and any problems it encounters. It is fast, and produces excellent graphics and text. Color quality is good, and it produces crisp overhead transparencies.

DECWriter 500i, 110i

These 2 Inkjet printers from DEC are also optimized for Windows: easy to install, and produce good quality 300 dpi output. The 500i is fast (up to 5 ppm for a text page, 1-3 minutes per page for graphics), while the compact, light 110i is rated at up to 3 ppm for text. A color module is an option for both. —Jeff Evans

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Quick, How Many Pounds In . . .

BY FRANK HILLIARD

Product: Quick Conversions
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Quick Conversions by Howard Communications Ltd of Sidney, B C is the kind of nifty little utility you don't know you need until you see it work. Then it becomes indispensable What it does is convert measurements of just about anything into just about anything else

The categories covered are Distance, Area, Weight Capacity, Density, Volume, Acceleration Speed, Time, Pressure, Force, Energy Flow and Miscellaneous — a catch all that includes the very useful ability to change kilometres and litres into miles per gallon In fact, it s the metric conversion capability that most people will immediately appreciate

For example if you type in 12 ounces, and click on convert you immediately get 340 194 grams and 3396 kilograms The same instant readout pops up in 12 other weight categories going both from-and to-metric

Converting distance generates even more options. Typing in, say 324 kilometres produces 1,062 991 8036 feet, 354,330 612 yards, 64,426 104 rods; 201.366 miles, 174 9276 nautical miles; 67 1004 leagues, and 1,610 59428 furlongs.

Some calculations in the Pro version are extremely exotic, such as Nepers to Decibels, but clearly these will be an asset to the engineers and scientists currently using formulas and pocket calculators. Other options will appeal to almost everyone, such as the sliding scale that converts price-per-kilogram to price-per-hundred grams and price-per pound, and a temperature conversion that changes Fahrenheit to both Celsius and Kelvin.

The appearance of the program is another asset. It has an up-to-the-minute texture map and shading look that belies its humble origin in the mind of a former advertising executive The program also has a sense of humor that can be found in the index under Miscellaneous at the very bottom of the list.

Quick Conversions Ver 2 21 and Quick Conversions Pro can be downloaded from BBSs or a Web page at http //www islandnet.com/~hcl/hcl.html and will run for 21 days After that, the shareware version which has about a quarter of the Pro's functions, will cost $19 95 plus $3 shipping and the Pro will cost $149 95 plus $3 shipping

The program has already been sold to a number of corporations, such as Proctor & Gamble, Norco Alloys Corp Racine Federated Bank and Abbott Laboratories, and is a big hit with the Canadian and B.C. governments

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HARDWARE / SOFTWARE

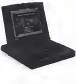
No Compromise Portables

In this era of budget cutbacks and mass merchandise schlock, it is sometimes good for the spirit to consider a no-compromise price be-damned computer. Over the past few months *The Computer Paper's* writers and editors have had a chance to walk around with a few of the latest thousand buck a pound portables.

Among them are 486DX4 75's and 100's as well as a couple of Pentiums. Most have the best that screen technology has to offer and hard drives that will swallow your average advanced operating system and suite of applications without so much as a burp.

Dell Latitude XP-4100CX

From. Dell Computer Corp
Price. $6 499 (as tested)
Reviewed by Geof Wheelwright



It has been barely a year since the original Dell Latitude notebook computer range rescued Dell's troubled notebook computer division, but these systems just seem to get better and better.

A few weeks with one of Dell's latest color Latitude XP 4100CX's (with 8 Mb of memory, 524 Mb of hard disk space, 100 MHz DX 4 processor and 9.5-inch color TFT screen) showed us just how far the company has come since the dark days of late 1993 when Dell temporarily withdrew completely from the notebook and subnotebook business. Not only is the new machine fast, well designed and sensibly-appointed, but a good deal of care seems to have gone into the options provided for the Latitude for serious work as a "road warrior's" machine.

We have written elsewhere about the long battery life of the machine (up to four hours per lithium ion battery) and Dell itself makes much of this fact in its advertising.

The lithium ion battery offers a number of advantages over more traditional nickel hydride offerings. Unlike NiCad batteries, a lithium ion battery does not "remember" a certain charge level. You can charge the battery whenever you like without fear of reducing its charge capacity. The lithium ion battery has a life span of up to 400 full charges, provided it is charged at normal room temperature.

While this long battery life was useful, the thing that really set the Latitude apart was the clever inclusion of a number of bundled software utilities, such as AutoMap Direct, Traveling Software's CommWorks (including LapLink V and an OEM version of Eclipse Fax software), a selection of "Dell utilities", Windows 3.11 for Workgroups, Video for Windows runtime Version 1.1, CompuServe Info Manager for Windows (CIM) 1.2 and a PCMCIA-based 14.4K data/fax modem (an optional extra that Dell sells for $350).

Using this selection of traveling tools, we were able to use the computer to navigate through Los Angeles highways during the California floods of January 1995, to send and receive files using WinCIM from hotel rooms in California and Seattle without any hitches. We were also able to transfer large amounts of data back and forth to a desktop system using LapLink.

The screen was deep, crisp, colorful and clear, the hard disk fast and responsive, and the overall performance of the system easily capable of matching that of any similarly powered desktop. This is certainly a notebook computer to contend with, and Dell ought to be proud of its technology turn

Continued on page 62

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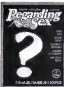

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No Compromise Portables

Continued from page 60

around in such a short space of time. Pricing on the Latitude XP starts at $3,999 for the base-level color DSTN machine.

Contact: Dell, 800-387-5752

Compaq LTE Elite

From Compaq Canada Inc.
Price $8,219
Reviewed by Geof Wheelwright

At the top end of the notebook market away from the price confines of its Aero and Contura subnotebook and economy notebook products – Compaq is having fun with the design of its Compaq LTE Elite flagship notebook system.

This product starts at $4299 for a system with passive matrix color display, 170 Mb hard disk, 4 MB of RAM and a 40 MHz 486 DX2 processor. And the truly well-heeled will find themselves able to get an LTE Elite 4/75CX with an active matrix color display, 8 Mb of RAM, 16K internal RAM cache, a 510 Mb removable hard disk and a 75 MHz 486 DX4 processor for a mere $8 219.

These are the kinds of machines where, if you have to ask the price, you can't afford them. We were, however, recently able to spend a few weeks with one and found it a rewarding experience – with one or two minor caveats – although we were a little unsure about whether it was worth spending quite so much money on something you could so easily lose under an airline seat.

First the basics: we liked the built-in AC Adapter, which replaces the power supply "brick" used by many notebooks and brings the total notebook carrying weight to less than seven pounds. We also liked the internal expansion options, which allow the built-in 4 MB or 8 MB of standard RAM to be expanded to 20 or 24 MB, the up to 510 MB storage in a removable hard drive, and the inclusion of two type II/one type III PCMCIA slot(s).

We were a little less sure about the integrated EasyPoint Trackball which sits to the right hand of the screen on the screen panel. It looked like it would be quite inconvenient to use – flipping from keyboard to trackball and back – but was quite useful when working on an airplane where much of the work involved scrolling and clicking. But when we were typing and needed to carry out mouse actions, this was not the ideal trackball for us.

Finally, we did have some problems with the removable hard disk. It packed up after the first few days of use. To be fair to Compaq, this could have happened to any computer that was being moved around a lot (this one was on a trip from Vancouver to Houston to New York to London, England and back). And it should also be noted that Compaq was extremely fast and efficient in taking care of the problem once the company was notified. The fact that the hard disk was removable also made it easy to take out the problematic disk for repair, and to slide in a new one.

Suffice it to say, however, that anyone buying one of these systems should be careful to remove the hard disk from the machine while traveling and store it in the special impact-proof plastic case which

Continued on page 64

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No Compromise Portables

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comes with the computer, rather than leaving it in the computer to get banged around while traveling.

On the whole this is a very nice $8,219 notebook which runs quickly and efficiently with lots of little goodies and extras. Now if only they could do something about that price

Contact: Compaq Canada 416-733-7876

NEC Versa-P Notebook

From NEC Technologies Canada
Price $8 117
Reviewed by Ross MacDonald

Anyone even remotely interested in notebooks will be well aware of NEC's up-market Versa series of portables. They've been around for a while but didn't really kick in until the Versa E came along in the fall of '93. Now at all of a year and a half old that venerable machine has been relegated to the annals of ancient history. NEC has introduced a whole new series of Versa models, with the "P" at the top end as their only Pentium based portable.

The first thing that strikes you about the Versa P is its sheer robustness of construction. A virtual copy of the E, all the I/o ports and the two Type II PCMCIA slots are in the same place. They've even persisted with that pesky "VersaTrack" trackball at the front something many never liked. As a veteran "E" user I couldn't find any difference in the keyboard, either the layout is the same, it's amply proportioned and gives solid positive feedback.

The giveaway is that the "P" has a *tiny* hole in the case just above the F1 key and little grid of other holes located above F9 and F10. These are the machine's genuflections toward built-in multimedia. The tiny hole turns out to be a microphone the grid a speaker. Backing these up are a 16-bit SoundBlaster compatible soundcard (headphone microphone and line in jacks at the back of the case) and high performance Local Bus Video with BitBLT accelerator.

There's a little promo video pre-loaded into Windows that's ideal for showing how this multimedia readiness stacks up. The video runs flawlessly — thanks to the Pentium-75 that runs the machine — but I had a problem with the sound. The tiny speaker just isn't capable of reproducing sounds with even marginal fidelity and I couldn't get any volume out of it despite turning it full up via the Audio Drive software.

The picture, conversely is excellent. If you choose to go (read pay) for it, you have the option of attaching NEC's industry-first

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High Resolution 800 X 800 display Everybody's going to want one. If they can afford it. The price difference between the hi-res screen and the already fabulous and fabulously expensive TFT display is about $550

Another new development is what NEC calls the "VersaBay" Formerly the hole occupied by the removable floppy drive or extra battery it s now wired up for alternate insertions like a video module or PCMCIA adapter for two more slots

On top of the optional hi-res screen my test machine came with the NEC standard 8 MB of RAM (expandable to 20 MB) and a 540 MB removable hard drive (other choices are 340 and 810)

All Versa P's use a P-75 chip and come bundled with Windows 3 11 and DOS 6 22 PCMCIA aficionados will be relieved to see that SystemSoft socket and card services are pre-installed along with the Audio Drive sound software NEC has also benevolently pre-installed a variety of drivers for anticipated extras like SRAM and IDE devices All in all, an excellent package.

Now for the scary part Despite price reductions in early February, buying a Versa P is gonna hurt My test model (hi-res, 540 HD) labors under the MSRP of $9 117 That goes up $750 if you want the 810 HD but down $550 if you vote for the TFT screen. Still, if I could afford it, I'd buy it.

Contact NEC 905-795-3500

AST Ascentia 900N DX/4 Color Notebook

From	AST Canada
Price	$7 578
Pros:	Excellent battery life color active-matrix TFT screen in a lightweight portable
Cons	Some keys in non-standard positions very small right shift key Trackpoint device has slippery surface

Reviewed by Graeme Bennett

The Ascentia s battery life is better than that of most notebooks we've tested (It s the only notebook we've seen with battery life that compares to the stellar performance of the Dell Latitude XP we reviewed back in July 1994) and its screen while not up to the level of the best active matrix displays from IBM or Toshiba is very good for a machine in its price-class Price however is an area where the Ascentia 900N isn t as competitive as many others A recent PC Magazine showed the Ascentia 900N rather near the bottom of the heap in terms of bang for the buck, and we'd have to agree.

Nevertheless it's from a manufacturer that is a cut above most of the "me-too" players in the notebook game It provides most of the features we like in a notebook at a price significantly below that of roughly comparable models from vendors such as IBM and Toshiba And while these and other first-tier vendors offer enough attractive features in their product offerings to maintain strong market leadership the AST offering has other attractions of its own.

As we wrote in the Jan. 95 issue, AST ships its products with the AST Works desktop shell that provides a somewhat easier to use Windows desktop than the standard one supplied by Microsoft (the standard Windows Program manager can easily be configured as the default if you'd rather not use the AST replacement) Among other niceties, the AST Works shell makes it extremely easy to back up the programs and data on your hard disk — a habit worth getting into

Also, AST ships the excellent Lotus Organizer 1 1 (not the newest version but judging from comments on CompuServe about 2 0, maybe that's just as well), and the usual DOS and Windows documentation

We weren t particularly impressed with the battery recharger, which seems rather large and clumsy compared to other recent models we ve seen (In the latest Ascentia 910 AST has reduced the size of a charger by about 50 percent - Ed) Perhaps NEC and Compaq set a precedent with their recent models which have a charger built right into the portable computer itself and we shall soon see that as the norm

Although we generally prefer a Track Point pointing device (a small eraser shaped button that protrudes from the G and H keys and acts as a mouse substitute) to trackballs, touchpads or other mouse replacements, we found the surface of the Trackpoint device of the Ascentia so smooth that our fingers slipped (especially if the finger is slightly oily or damp), making control difficult We prefer the ribbed Trackpoint button on the newest generation of IBM portables.

The keyboard design on the Ascentia was also a concern for us. Although not exactly unusual (it's almost identical to the design used in recent Toshiba subcompacts), we find portables with a tiny right shift key and the backspace key not in the upper right corner to be less easy to adjust to than models with more typical key positions. Again, we prefer the layout found on

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machines like the IBM Thinkpads

We tested the Ascentia 900N under Windows 3 11, which it ships with, and a prerelease copy of Windows 95 It performed well in both cases.

We had less luck trying to use it with a Megahertz PCMCIA Ethernet Network card. Despite the fact that the Megahertz card lists several AST models in its compatibility list we were completely unsuccessful at getting it to work under either OS on this particular model. This we believe, is more the fault of the card and the PCMCIA "standard" than of AST but it was troubling nevertheless.

It is worth noting that lesser known brands of notebooks are much more likely to have these sort of hassles with PCMCIA cards because at least the major brands of notebook PCs (e g the Megahertz card lists specific models from Ambra AST Compaq Dell Gateway 2000 IBM NCR NEC and Toshiba) will be listed on the boxes of PCMCIA peripherals as compatible With a no-name notebook, you pretty much have to waste several hours discovering incompatibilities (and judging from our tests and the comments of others who have used a lot of PCMCIA cards there are plenty) for yourself

Contact: AST Canada, 905-507 3278

Eurocom 3600 Pentium 66 Notebook PC

From	EuroPak International
Price	$5 896
Pros	Trackball feel built in sound, speed
Cons	Contrast control on screen, weight, noisy fan, keyboard

Reviewed by David Tanaka

Until recent shipments by other manufacturers like Toshiba, and NEC, the Eurocom was the only game in town if you wanted a Pentium laptop Informal tests show the Eurocom has the speed. For example it proved to be about 30 percent faster at copying a 257 object CorelDraw file than a 486 DX2 66 desktop machine

We expected battery life to be worse than what we actually experienced It lasted for slightly longer than 1.5 hours under what we'd consider heavy use During the better part of that hour and a half we were loading software The hard drive was being accessed steadily, though intermittently and the floppy drive light was on almost continuously The low battery warning light came on approximately a half-hour before the computer ran out of power A Eurocom spokesperson said the company rates battery life at about 2.5 hours under normal use and we think that's a reasonable estimate

The model we looked at came with 8 MB RAM 340 MB hard drive, and a dual scan passive color screen The passive matrix color screen was quite good for its type although anyone who's been spoiled by a TFT active matrix screen will find it dim

Like the Apple Powerbooks the Eurocom moves the keyboard up towards the screen hinge, leaving a generous area beneath the area that serves as a wrist rest. The trackball is set into this area offset to one side This offset means your right thumb falls naturally in the ball when your hands are in the home typing position It is one of the better built in units we've tried, with a large ball which allows easy and precise control over the mouse pointer

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what's new

SERVICE OR PRICE? • A survey conducted by Louis Harris and Associates for Dell Computer Corp reveals some interesting differences between what Canadian and American corporate customers value. While Canadian computer shoppers value service and support more than price and performance, the opposite holds true for US corporate computer shoppers.

What's the biggest concern in setting up computer operations?

	Service & Support	Price/Performance
Canada	34	26
U.S.	27	36

The survey was conducted in Nov-Dec 1994 and included responses from 300 large corporations in North America. —DT

COREL VENTURES INTO SGML • Ottawa-based software manufacturer Corel have acquired the licensing rights to InContext's Standard Generalized Markup Language (SGML) technology and plan on including them in future Corel products.

As the need for electronic exchange grows, SGML provides an easy way for processing multimedia information across different computer systems and platforms. A sub-set of SGML, HyperText Markup Language (HTML) is used widely on the Internet via the World Wide Web, and SGML allows for a greater range and flexibility of output than HTML. Toronto's InContext software allows users to easily generate SGML documents and to print the results, place them on-line or to press them onto CD-ROM.

Corel plans to include InContext's SGML technology into Corel Ventura 6.0, slated for release by Fall 1995. — K.S-R

Contact: Corel Corp 613-728-3733

No Compromise Portables

*Continued from page **66***

The Eurocom also has built-in sound capabilities, and we tested them by installing a voice command system called Listen For Windows. (See a review of Listen For Windows elsewhere in this issue.) The program correctly identified its sound capabilities and we were barking commands to our Eurocom in no time.

A few aspects of the machine need work in our opinion. We found the Eurocom quite noisy. The fact that you are working just inches away from the mechanics of the laptop means that noises that might not be noticeable on a desktop machine are somewhat distracting at close quarters. We also didn't care for the slider style brightness and contrast controls which were very touchy. And finally at more than eight pounds it is on the heavy side for a notebook.

Soon, most of these deficiencies will be addressed. EuroPak says it will be introducing a new Pentium notebook next month that will be smaller and lighter. It will be called the 9600 and will use the same case as the 9200 models, which means it will weigh under seven pounds. ❑

Contact: EuroPak International 613-721-3221

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Prime Time Nearing For PDAs

BY GEOF WHEELWRIGHT

A second wave of personal digital assistant products (PDAs) — generally offered under the new heading of 'personal communicators' — has caused the PC industry to be awash with stories of hand-held wonderment.

Typically these new devices include built-in wireless communications of some sort (through either cellular, paging or infra red communication) and are more modest in what they hope to accomplish than their predecessors. Talk of handwriting recognition is also being considerably played down.

Making a beach head in this new communications-based assault are Sony, Motorola and Sharp. Windows-based PDA products that were supposed to come out of the WinPad development effort by Intel and Microsoft (along with Compaq and other OEM customers) are being delayed until at least 1996, if not later.

The Sharp Zaurus can wirelessly download and upload information from persons computers

The most innovative of these devices are currently only available in the United States, although active negotiations are underway to bring them to many other areas (including Canada, the UK and Europe). But the technological goal they represent is so compelling that you cannot fail to be entranced by the applications potential they bring.

The Wireless Connection

The start of this second communications based wave of PDA releases came last year with the announcement of the Motorola Envoy Wireless Communicator, a substantial PDA weighing 1.7 lbs. and measuring 7.6 x 5.8 x 1.2 inches that pioneered the use of several key communications technologies in a PDA.

To start with, the Motorola Envoy incorporated both two-way wireless and wireline communication in a handheld computer for the first time — and did so using the long-awaited Magic Cap graphical operating environment, the TeleScript communications language and the TeleScript aware AT&T PersonalLink communications service.

The idea behind these technologies was to offer users a simple way to accomplish all kinds of data communications tasks from a handheld, pen based palmtop computer: electronic mail, "smart" paging, faxing, personal information management and scheduling, and Windows and Apple Macintosh-based data exchange.

Envoy was different first and foremost because it included a built in two-way wireless

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packet data modem that would allow Envoy users to send and receive messages faxes pages, as well as services such as AT&T PersonaLink and RadioMail.

The hardware used in Envoy was what you would expect in a good state of the art PDA, but did not offer any huge surprises The Envoy offered two PCMCIA Type II slots a monochrome 480x320 resolution LCD touch screen, a proprietary Motorola expansion port called MagicBus (which allows you to connect the Envoy to up to six add-on devices such as keyboards scanners and printers) built-in speaker and microphone, a removable rechargeable NiCd battery 1 MB of RAM 4 MB of ROM and the Motorola Dragon I/68349 3 3 volt processor

In addition Envoy included the aforementioned built-in wireless and wired modem (with standard RJ11 telephone connection) as well as an infrared link. The infrared link is designed to allow data to be "beamed" between two Envoys (or other compatible Magic Cap devices) It is not designed to be used with other non Magic Cap-based devices

Envoy actually began shipping in the US to distributors in late December of 1994 and in mid-February of this year Motorola announced that it was now available nationally in the US in "select reseller and distributor locations."

Envoy comes bundled with software to connect users to two communications services: AT&T PersonaLink Services and RadioMail, connected via the ARDIS nationwide wireless data communications network. Motorola says ARDIS services more than 90 percent of the business areas in the US, including 400 metropolitan areas which encompass 10 700 cities and towns

Motorola describes AT&T PersonaLink Services as "an electronic community" where people can send and receive messages gather news and information, and even shop. PersonaLink is also the first on-line service to incorporate Telescript electronic "intelligent assistants" which give subscribers tremendous control over their communications Subscribers can program the intelligent assistants to do tasks such as sort, prioritize and forward electronic mail to virtually any e-mail service including the Internet

PersonaLink is supposed to offer subscribers "cost and convenience options with a robust on line service that will fully integrate wireless and wireline communications" AT&T's PersonaLink wireless service is designed as a nationwide radio packet data service with automatic roaming full end to end encryption (for enhanced security) and wireless access to the user's electronic mailbox. Also promised for the second quarter of this year is AT&T Market Square plaza, an electronic shopping service offering products such as clothing, flowers computer equipment and collectibles

RadioMail, meanwhile allows wireless messages and information to reach Envoy communicators in all locations where ARDIS service is available This service enables users to wirelessly communicate with a broad population of electronic mail users via the Internet and commercial public mail systems.

The Envoy also features built in software which allows access to available services from America Online and Official Airline Guides (OAG) FlightLine Service America Online allows users to receive stock quotes and communicate with electronic mail users The OAG FlightLine Service offers air travelers direct access to timely flight information The Envoy Wireless Communicator also comes with Intuit's Pocket Quicken an application that allows users to manage personal finances

Motorola says it is working with multiple independent software developers who have created a variety of applications and services for the Envoy More than 15 applications ranging from spreadsheets to desktop connectivity kits, are available Motorola and General Magic say they will continue to work with independent software developers to create more applications and services for the Envoy device

In the US Motorola predicts the street price for Envoy will likely range from $1,000 to $1 500 depending on configuration Accessories available for the Envoy include carrying cases a travel and a rapid charger and replacement parts such as batteries, power adapter and stylus

Sony Magic Link

Meanwhile Sony's just-announced Magic Link Personal Intelligent Communicator 1000 offers many of the same features of the Envoy, but implemented in a slightly different fashion.

The basics of the Sony Magic Link system are as follows It weighs only 1 2 pounds is selling in the US for $995 and uses Magic Cap TeleScript and the AT&T PersonaLink Services network to deliver functions such as downloading electronic mail or receiving pager messages

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Magic Link also includes a built-in 2400 bps modem (although faster internal modems are expected when Sony can get them onto the single chip design used in Magic Link), and comes with a modest 1 Mb of RAM with expansion to 2 Mb via a PCMCIA memory card.

So the basic design of the Sony system is a lot like that of Motorola's Envoy except that the Motorola system costs more and offers a greater number of expansion options. It is fair to say, however, that Sony has more experience in consumer electronics marketing to bring to bear on this than Motorola has with the Envoy

Sony and Motorola will not be alone in the Magic Cap market for much longer A number of other companies have already indicated their enthusiasm for producing Magic Cap-based systems – and General Magic has also announced plans to bring Magic Cap to desktop systems.

One key supporter could be Japanese electronics giant Matsushita (the parent company of Panasonic), which has already committed to producing some form of Magic Cap-based product in the near future

Land Of The Rising Zaurus

All of these Magic Cap products, however, are a million miles away from what is being envisioned by Sharp, one of the longest-running supporters of the whole PDA concept Sharp wants you to imagine a computer that weighs less than one pound, runs on two AA batteries, provides infrared communications, built in word processing, long filename support a PCMCIA expansion slot optional fax modem, 1 Mb of memory, built in communications software pen-based drawing software and pen-based control, as well as offering QWERTY-based keyboard data entry

And then you can stop imagining The machine is here and now and goes by the name of Sharp Zaurus ZR 5000 The Zaurus was unleashed on the world at the Fall Comdex '94 show in Las Vegas and finally started shipping in March with a full range of peripherals including a proprietary fax modem optional infra red printer interface, PC Link hardware and software package (available for use with Windows or Apple Macintosh systems), PCMCIA RAM cards, infrared PC communications interface and PCMCIA flash memory cards.

On first inspection the Sharp Zaurus ZR5000 is a lightweight, compact "flipopen" palmtop computer that's slightly smaller than Apple's Newton or the Casio/Tandy Zoomer It's a little larger, however, than the likes of the Psion Series 3a or any one of the legion of databank calculators.

Sharp sees its target customers for the Zaurus primarily being mobile professionals who might use it to send and receive electronic mail send faxes, access on line services exchange information with local and remote PCs, take notes on an electronic notepad, create maps and drawings generate documents with an intelligent word processor, and do typical personal information management work.

Unlike some of its earlier offerings, Sharp is aiming the Zaurus at both the corporate and consumer markets. With its inclusion of 1 MB of internal memory (750K of which is available for user data and add-on software), Sharp is hoping the Zaurus will prove an attractive platform for corporate and third party software developers and is targeting markets such as medical, pharmaceutical, and insurance as potential customers.

Continued on page 73

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Technical Drawing Programs What's In A Name?

BY RALPH GRABOWSKI

Technical drawing programs are illustration programs with some CAD like features The programs reside in a narrow spectrum between CAD (computer aided design) software like AutoCAD and illustration software like Adobe Illustrator

How does the label "technical" make this software different from "non technical" illustration software? From what I can tell the difference is largely in the mind of the marketing department.

Features touted as oriented to technical drawing are found in equal numbers in the illustration programs *not* targeted at technical markets That list of features includes dimensioning layers data tags, technical symbols and access to CAD file formats It would be easy for Corel to come out with "CorelDraw Technical Edition" simply by renaming CorelDraw 5

Here we look at two drawing programs targeted at the technical illustration market: Micrografx Designer Technical Edition v4.1 and Ditek DynaDesigner v3 0 From the packaging, I expected the products to be similar Putting them through their paces, I found them to be very different

Micrografx Designer Technical Edition

Designer Technical Edition v4 1
Price $795 full or $149 upgrade (30-day free trial on CD-ROM also available)

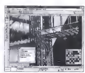

Figure 1 Micrografx Designer Technical Edition v4 1

Micrografx hails Designer TE as a complimentary program to CAD software such as AutoCAD They envision a wireframe design created in CAD ported over and touched up in Designer TE. And they envision illustrators creating a conceptual drawing in Designer TE, then porting it to the CAD software for rigorous design

In practice I m not sure how well that would work The weak link is one of Micrografx s boasts for Designer TE Translation from CAD software is via DXF rather than DWG the new de facto standard for CAD software Instead of just reading a DWG file into Designer TE I had to first load AutoCAD and the drawing, save the drawing as a DXF file, then switch to Designer TE, and finally import the DXF file Under Windows I would use the Clipboard, but I find that AutoCAD for Windows doesn't create an accurate WMF image

I tested the CAD link with Test-Dwg Dxf, an AutoCAD Release 12 drawing that contains all of AutoCAD's objects, hatch patterns, linetypes, and colors Designer TE had problems with linetypes polyface meshes and tapered polylines Text was translated to the Arial font

Designer TE is strictly 2D the limited 3D added to version 3 has been dropped in

➤

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HiNote Ultra	486DX4/75	Act. Col.	8	$5995

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Technical Drawing Programs

Continued from page 71

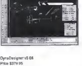
version 4. Instead, you simulate 3D through graduated fills and faked perspectives. That seems like a lot of needless effort to someone used to AutoCAD automatically generating perspective views and pretty good renderings in under a minute. I found the screen redraw speed slow but fortunately "background redraw" means you can do other things while Designer TE continues the redraw.

On the plus side, Designer TE has OLE v1 and TWAIN scanner support, places and traces raster (bitmap) images, works with TrueType and PostScript fonts and has CAD-like features (including automatic dimensioning), just as many layers as AutoCAD and file support for DXF, IGES, and AutoShade render files.

I appreciated the boatload of on-line help. There's balloon help, a floating (or dockable) help window, and CBT (computer based training) which consists of 40 lessons run as AVI movies.

I like the install program giving me the option to run Designer TE off the CD-ROM drive. While that means it takes longer to load the program, the hard disk space merely stores the INI, overflow and work files. In an effort to compete with Corel Draw, Designer TE includes 10,000 pieces of clip art, 283 fonts in TrueType and PostScript formats, and PhotoMagic, a rudimentary raster editor.

Ditek DynaDesigner



DynaDesigner v3.08
Price $379.95

Figure 2: Ditek DynaDesigner v3.0

Ditek, a Canadian company, promotes DynaDesigner as an "all-purpose design, drawing, drafting, and illustration program." To me, DynaDesigner appears to be a CAD package — plain and simple — lacking the design and illustration parts. There is no area fill, no gradient fill, no shading or rendering — tools that I as an illustrator need. The Render command is grayed out. Even the background color for the drawing area is black — the traditional background color for CAD software. Other shortcomings: a lilliputian symbol library, zero support for TrueType fonts, and no ability to work with raster images.

As a 2D and 3D CAD package, DynaDesigner has a lot to commend it, though it lacks some functions found in its more expensive sibling, DynaCADD, such as rendering and programming. I particularly like DynaDesigner's user interface. (Before I describe it, let me acknowledge that I dislike screens cluttered with a Microsoft Office-like interface: floating toolboxes, multiple toolbars, help wizard windows — they all get in my way by obscuring parts of the drawing.) For the most part, I access DynaDesigner commands from a large control panel area along the top of the screen. Particularly clever is the embedded "overview" window, equivalent to the floating bird's-eye view in other CAD packages. I found the screen redraw speed fast.

I though it was cute that DynaDesigner's native file format is named "DWG," the same as AutoCAD. However, I could not read AutoCAD DWG files directly; instead, I had to create a DXF file within AutoCAD first. DynaDesigner has fonts, hatch patterns, and linetypes compatible with AutoCAD's; my test drawing translated accurately, with the exception of polyface meshes. But it bothered me that two of the four sample drawing were old AutoCAD sample drawings with the Ditek logo annexed on.

While DynaDesigner is interesting as a CAD package, I fail to see how technical illustrators would benefit from it. ❑

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800-360-8464
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Continued from page 70

As with the Sony and Motorola offerings, Sharp is counting on communications to really help make the difference on this system. Connected to a regular or cellular phone (via Sharp's own optional modem or any compatible third-party PCMCIA modem), Sharp promises that Zaurus users will be able to send or receive messages and data using services such as AT&T Mail in the US and easily access on line services such as CompuServe.

In addition, Sharp's optional Zaurus Mail system is supposed to allow small work groups to exchange messages and data using a single Windows-based PC as an electronic post office. Sharp is promising that small companies or departments will be able to easily and inexpensively set up this Zaurus Mail system, which allows them to keep in constant contact with the home office and each other.

Users will be able to access their Zaurus Mail in the office via infrared technology or dial into the system from the road. In addition, users can also instruct the Zaurus Mail software on the PC to send important messages to an optional PCMCIA pager card in the Zaurus.

The PCMCIA type II slot is also supposed to be the route to expanding both the memory and communications capabilities of the Zaurus. Sharp promises that you'll be able to add additional memory using up to 2 megabyte SRAM cards or 16 megabyte FLASH cards. Sharp says the Zaurus supports many PCMCIA Type II devices, including cellular capable Fax/modems and pager cards. Drivers for future PCMCIA Type II devices will apparently be provided by Sharp as needed, and easy enough to use that you'll be able to install them yourself.

Optionally, you can give Sharp your money for add-ons and buy its Sharp CE-FM4 9600bps/2400bps fax/modem, which attaches directly to the serial port on the side of the Zaurus. This has the virtue of adding very little additional size to the main unit, and it leaves the PCMCIA Type II slot open for other devices.

The Zaurus also supports "Digital ASK" infrared technology developed by Sharp, which includes both 115.2 Kbps IrDA-compatible and 19.2 Kbps ASK modes. Using this technology you can use the Zaurus to wirelessly exchange information with infrared equipped PCs, laptops, and other infrared equipped devices such as Newton based PDAs and Sharp Wizards. With the right optional infrared adapters, Sharp also promises that you'll be able to beam information to PCs, Macintoshes, and PC printers.

At the heart of Zaurus is a proprietary Sharp-designed, 16-bit processor that boasts low power consumption – with up to two months of battery life promised for the AA batteries used by the machine. As with most other PDAs, the Zaurus operating system (which Sharp calls Synergy) is hidden from view.

It tries to provide the standard interface elements that Windows and Macintosh users will find familiar, such as check boxes, radio buttons, scroll bars, and pop-up menus – but sometimes fails to come up with as rich an environment as many Windows or Mac users would expect.

But the pen support provided by the OS does mean that "pen-enabled" features such as text selection, drag and drop and sliding the pen for time selection, provides a quick way to get things done.

And the pen note-taking feature (using "Ink" as a data type) does offer a quick and easy way to jot things down (if you can read your own handwriting) if you don't want to use the keyboard. That may be wise, since the keyboard is a little flat and has a somewhat confusing key layout (with a tiny backspace key and annoyingly small spacebar) which can make typing tough.

The software is cleverly written, however, and does squeeze the most from the hardware. Drawings, for example, are stored as vector objects (not bit-mapped images), meaning that less memory is used per page, and the Zaurus can efficiently display notes in a 50 per cent reduced window while maintaining readability.

Sharp also boasts that this Synergy OS is "data-centric" and provides the ability to relate different types of information in a hypertext kind of way. The way this actually manifests itself in the product is that Zaurus applications such as Activities, Contacts, Notes and Documents can interlink information automatically.

This linking allows you to jump directly from one entry to another linked entry. You can, for example, while viewing a contact's information, also see a list of all related entries, whether they be past or upcoming meetings, notes taken, action items, or even letters written to that particular contact.

Some other clever software tricks include automatic letter formatting in the Zaurus Word Processor, which is otherwise something of a let down (and falls far short of that on the Psion Series 3a). To use this automatic formatting, you simply type in the main body of a letter, select a recipient, and the Zaurus will automatically fill in the heading and closing, insert the date, align and space paragraphs, and even insert your signature (which you can "sign" directly onto the screen). The Word processor also has spell checking capabilities.

The drawing application features are also available for use from within other Zaurus applications, such as Documents, Contacts, and DataFiles. Maps, sketches, signatures, logos, and even company letterheads can be embedded within these applications.

The ZR-5000 Zaurus should be available in Canada by the time you read this. It has a suggested retail price of $970. ☐

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Canada, the true north strong and free. Home of the greatest hockey players in the world the beaver, Greenpeace, a nation-wide identity crisis But in computer circles, Canada gets its fair share of notoriety from other sources, namely the Canadian software industry

Diverse quantum leap products like CorelDraw and The Maximizer have seemingly opened a rather large door through which Canada is quickly gaining a reputation as a software producing concern Nowhere is this more evident than in the realm of the "soft fax" where Canada may just be becoming the PC fax software capital of the world. Delrina Corp with its bevy of fax and communication packages, leads the way But now Ontario's 01Communique Laboratory Inc is mounting a strong challenge with the release of its own contender 01/FAX facsimile software

Targeting virtually anyone who wants to send and receive faxes through their PC, 01/FAX is a full-featured package that certainly meets the needs of the part-time user but is a complex instrument that is especially effective when thrown into high volume, broadcast faxing applications 01/FAX comes packed with a whole bunch of stuff that much of the competition simply does not have, and in actuality, is quite a bit more than just a faxing program 01/FAX runs in either DOS or Windows, and although appearance and operations in both environments are quite similar this review concerns itself for the most part with the Windows version.

Marketed as the "ultimate computer fax solution," 01/FAX nevertheless looks simple enough with just eight large command buttons and a menuing system acting as the main interface From this less than imposing opening screen, though, users will access everything in the 01/FAX arsenal and a more comprehensive arsenal would be hard to imagine At times, 01/FAX won't be nearly as easy to navigate as its opening interface suggests, so computer fax rookies be prepared to educate thyselves once immersed in the program.

Of course 01/FAX like most other Windows-based fax software allows faxing directly from one's current application (by selecting 01/FAX as the printer), and this may well be the most common user scenario

But it s in its mass-faxing capabilities that 01/FAX separates itself. To that end, one of the most important innovations in the product is the presence of a contact manager While admittedly not going to the lengths of the aforementioned The Maximizer the 01/FAX Phone Book is a smartly constructed affair that will allow users to maintain, organize and sort information pertinent to their list of contacts/fax recipients

There are plenty of options here, including user definable fields (of no more than 55 characters in length), faxing filters (that for example allow 01/FAXers to broadcast only to businesses run by people with a penchant for tiddlywinks that are

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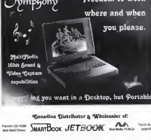

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Continued from page ***74***

within the 905 area code) and even the ability to create individual Phone Books suited to one's customized criteria. Even long distance charges can be minimized by instructing 01/FAX to ignore anything with an area code! As mentioned earlier, and as is the case with several of the advanced features within the program, newcomers should be prepared to do some reading and perform some experiments before getting it all just right.

Of course, who wants their entire computer tied up with faxing when there's so much other work to be done? 01/FAX gives the user the option of faxing in either the foreground or background, and for those who choose the latter, a tiny "traffic monitor" may be selected to run discreetly in the corner of any Windows application. This little icon will keep the user abreast of the current status and progress of faxes both coming and going, what's cued, and the like. 01/FAX also allows the user to add or delete information to the fax currently being broadcast without interrupting the procedure.

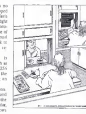
Got some hard copy to send? That's no problem with 01/FAX. It comes equipped with scan & fax capabilities, using Claris OCR. Users may scan, then fax later or right away, scan and print (essentially photocopying), then save the document in one of several dozen file formats. In reverse, visual images received may be converted back to the sender's original text format for reworking.

One note: although "Twain" is supported, older versions of Twain, such as the one that came with my Logitech 256 hand-held three years ago, may not cut the mustard. 01/FAX says that obtaining an updated Twain will solve the problem.

Included are text and graphics editors permitting users to create both words and visual images without having to exit the program. The Graphics Editor in particular, with its striking similarities to Windows' own Paint program, and multiple format saving ability is interesting. Although images are bitmapped, they are acceptable for most applications, and small amounts of artistic text can be created with some formatting abilities, including the use of any Windows installed font. Once a tasteful image has been created, it may then be saved and used (with some variations if desired) as a letterhead or fax cover sheet, and included with some or all of one's faxing jobs. The Text Editor, meanwhile, operates in ASCII without any formatting, making Windows Write or practically any other word processor a preferable alternative.

01/FAX is available as a single user or network program with or without OCR. 01 Communique has licensed unlimited operators for the network version, but recommends no more than 20 people per single fax board for the sake of efficiency, and even that may be stretching things a bit. Windows users will require Windows version 3.0 or better. One General Protection Fault and a single lock-up were experienced during testing, but otherwise 01/FAX made its mark with a strong and multi-pronged attack that reinforces this country's grasp of the soft fax market. ❑

Sightings Steven M Johnson



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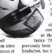
BY KEITH SCHENGILI-ROBERTS

Title	Novell PerfectOffice v 3.0
Manufacturer	Novell Corp
System Requirements	386/25 or higher processor DOS 3.1 and Windows 3.1 or higher 4MB RAM VGA display mouse or compatible pointing device
Prices	
Standard Edition	$920 upgrades $279-$339
Professional Edition	$1 199 upgrades $499-$596

Novell has entered into the fray of the Application Suite market with the release of its PerfectOffice The Standard Edition of PerfectOffice comprises the following programs WordPerfect 6 1 the latest incarnation of the popular word-processor Presentation 3 0 for presentation graphics, Quattro Pro 6 01 the former Borland spreadsheet package, InfoCentral 1.1, a personal information manager Envoy 1 0a, a workgroup electronic publishing tool, and GroupWise 4 1, which includes e-mail, calendar and scheduling functions. The Professional Edition includes Paradox 5.0, a relational database from Borland, and AppWare 1.0 for developing your own applications This is a very strong introductory product from Novell, and will increase competition in the market.



The installation process is very smooth and configurable for what ever applications are needed on each machine. Both versions are available on either CD-ROM or diskette However unless you are interested in installing upwards of 30 diskettes at a time per workstation definitely go for the CD-ROM version The amount of hard disk space needed depends on how much you intend to install. Full installation of the Professional Edition takes up just under 100MB, and the installation of AppWare will take up a further 25MB Comments about "Fat Ware" aside it is definitely possible to "live" completely within this suite of applications and not have to use anything else Further, the quality of the individual programs make PerfectOffice a real competitor in the marketplace.

Novell's major competitors in this market are Lotus and Microsoft Many of PerfectOffice's features seem to have been geared towards users already familiar with Microsoft Office When Windows starts up, so does Novell's Perfect Office which provides a toolbar at the bottom of the screen that will be very familiar to Microsoft Office users Novell has also done its best to provide a common interface between programs, and in the case of WordPerfect Quattro Pro and Presentations the programs' "look and feel" are virtually identical If you already know your way around one program it will be easy to get around in another

WordPerfect-ed?

The program that will be familiar to most people is WordPerfect 6 1 the first Novell incarnation of the popular word processor There's actually not much different in this version over the previous 6.0 release, other than an extensive cosmetic change to the look and feel of the program The large toolbar and buttons that have been prominent in previous releases are gone sacrificed in favor of the smaller toolbars common to the other PerfectOffice applications.

WordPerfect 6.1 has definitely benefited from the overhaul of the code by Novell, as the program seems to run faster The OLE functionality had previously been one of the program's main headaches, but is now one of its highlights. There is still a legacy of minor problems that have been present in previous versions particularly the way WordPerfect has the tendency to leave behind lots of temporary Windows files that can slowly eat away at the amount of hard drive space you have available

There are a few other new features to the program, like the ability to add drop caps and the ability to force text to fit a page, but these really amount to "ticklers", and will not convince many standalone WordPerfect for Windows users to upgrade However WordPerfect 6.1's integration into the Suite is tight — particularly its OLE functionality — and it is more than capable of handling any word processing task thrown at it

Borland's Contributions

Both Paradox 5 0 and Quattro Pro 6 01 have been culled from Borland Late last year, Novell bought the rights to use Borland's Paradox database program and their Quattro Pro spreadsheet program Both applications are virtually unchanged in functionality and people familiar with the programs before

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they left Borland s fold will feel right at home Both are top-notch applications in their own right

Quattro Pro 6 01 is extremely user-friendly and includes 28 Coaches (which used to be known as "Tutors" in the Borland days) and over 30 Experts to quickly help you accomplish your tasks The addition of "transition tools" will make it easy for anyone to make the switch from competitive spreadsheet programs. The previous Work Group edition of Quattro Pro supported Structured Query Language (SQL) functions, which made it a very good tool for requesting data across a network. Novell has kept this feature in the new version and have greatly enhanced its speed They have also addressed one of the biggest gripes of version 5 0 which was the inability to create your own @functions While most people were happy using one of the over 300 @functions built into version 5 0, through Formula Composer you now have the option of creating functions that somehow slipped past the developers.

Of PIMs and WorkGroup Publishers

InfoCentral 1 1 is a personal information management (PIM) program that differs from the norm It is an object oriented database, and therefore takes a different approach to contact management than most other relational database PIMs on the market.

Users of programs like Symantec's Act! or Polaris' PackRat will probably find the transition awkward though the price of the stand alone version will appeal to people considering purchasing Ecco which also works in an object oriented manner The object oriented approach allows users to link people visually to meetings corporations, addresses or any other piece of information Its design makes it inherently more flexible than relational database PIMs but conversely it can be harder to track down the information you are looking for

InfoCentral 1 1 is tightly integrated into PerfectOffice with easy links to GroupWise's calendar and schedule programs and its OLE 2 0 feature makes it easy to share information between programs The ability to instantly alter contact information while working in another program makes InfoCentral 1 1 a valuable addition to the PerfectOffice

Envoy 1 0a is an innovative workgroup publishing tool that Novell first introduced last summer It allows Windows and Macintosh users to exchange view and annotate documents while keeping their graphic and design elements intact By way of an Envoy printer driver, you can create an Envoy from within any Windows application The Envoy Driver retains the font and page layout of the original document and compresses most files to at least half their original size

Using the Viewer you can then annotate and manipulate Envoy files Using Envoy Runtime you can embed Envoy Viewer within each document, so users can edit and print the files even if they do not have a copy of Envoy on their system This program more than any of the others, singles out PerfectOffice from its competitors and has the ability to make PerfectOffice the choice of workplaces which do desktop publishing on multiple computer platforms

Showing Off and Wise Groups

Presentation 3 0 is another product from the WordPerfect portion of the Novell applications group It has never been as strong a player in the presentation graphics field as its competition, but its integration into PerfectOffice may make it a real competitor Presentation has generally fallen short in terms of flexibility but its OLE 2 0 features will change that significantly One of its strengths has always been its ease-of-use and this side of the program has been further emphasized

With Presentation 3 0 it is simple to come up with a slide show or drawings Novell has done Presentation users a real favor in tidying up the user interface but what makes Presentations a real contender is that it allows users to use and edit Presentations over a network, and gives Administrators the ability to configure Presentations across the Network via Novell s NetWare Navigator

GroupWise 4 1 formerly known as WordPerfect Office, integrates e mail, calendar and schedule functions within one program It appears as a selection within each PerfectOffice application for easy retrieval, as its simple design belies its power It is very easy to set up schedules and tasks and it uses an in box and out box for handling e-mail It is the only e mail product with the ability to track the progress of sent messages and gives you the ability to retract any nasty e mails you may have sent, and later thought the better of

The version of GroupWise that comes with PerfectOffice is a scaled-down version called "QuickLook" which provides 5 user licenses as a "test drive" for the full product. This is another strong component of Novell's Suite capitalizing on the Network functionality built into the product.

Instant Program — Just Add AppWare

AppWare 1 0 is an application in a class of its own It is included with the Professional version of PerfectOffice, and allows users to create their own application using an object oriented visual programming environment In the AppWare Project Window, you simply link together the various components of the program you want to create edit the menus the way you want them, and then compile it when you are happy with the results.

Novell is billing PerfectOffice as the first "network suite" and beyond the PR hype there are some interesting things Novell has in store for PerfectOffice Its integration with GroupWise and the ability to control the implementation and distribution of the individual programs through NetWare central directory services, will quickly make this the suite of choice with many Network Administrators. Expect Novell to bring the full force of its networking abilities to the product, giving it unique features in the near future. Many industry analysts predict that the next stage in the software industry is distributed and collaborative computing PerfectOffice is a product that fits that model. ❑

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ANALYSIS

PerfectOffice Enters Desktop Suitestakes

BY GEOF WHEELWRIGHT

Software suites are taking over from single applications as the most exciting and fast-moving mainstream software applications. You only have to look at the success of Microsoft Office, which has apparently become a $2 billion annual business for Microsoft, to get some idea of the impact this form of software is making.

The second-biggest player in the suites market is Lotus Development Corp., with a product called SmartSuite, which brings together its Lotus 1-2-3 for Windows spreadsheet, Ami Pro word processor, Freelance Graphics business presentation, Approach database and Organizer electronic diary/calendar software as a single offering.

Joining this application "suitestakes" is Novell's PerfectOffice. Novell is seeking to leverage its dominance in the networking sector to position PerfectOffice as the natural choice for anyone running a Novell NetWare network.

The marketing effort behind last June's announcement of PerfectOffice 3.0 (an interesting choice for version numbering given that PerfectOffice 1.0 and 2.0 never existed) demonstrated how Novell intends to play the NetWare card.

The point was made sharply by Mark Calkins, vice president of product market in the Novell Applications Group's WordPerfect division, in a recent statement. "Being the first network suite means much more than just running on a network," he suggested. "PerfectOffice is the first suite to begin to integrate network and workgroup services with desktop applications making it the best solution for end users and the system administrators who manage software across an enterprise."

Why Suites Are Popular

For users, these "office" products provide them with a way of buying a complete suite of applications at up to one-third or one-quarter the cost of buying the individual packages contained in them. For manufacturers, office-style products offer a way to gain market share for parts of the package that might not ordinarily get in front of users, while tying users to their vision of how applications should tie together.

Office products can also shut out the competition. After all, when you buy a product that already includes a substantial word-processor, spreadsheet and graphics package, why would you then go and spend even more money to buy a separate and different spreadsheet from someone else?

In this way, Lotus is able to attract users to its Ami Pro word-processor who probably bought SmartSuite to get Lotus 1-2-3, while Microsoft can get people using PowerPoint when they really bought Microsoft Office to get hold of Excel and Word for Windows.

As to how all this plays out in the market, the only thing that can be predicted with certainty is that Lotus, Microsoft and Novell will spend a lot of money making this a highly combative war for market share. Whoever wins the war of the suites holds the key to future productivity platforms and none of the major players feel that they can afford to lose this one.

The Novell Answer

Novell's answer to Microsoft and Lotus is PerfectOffice 3.0 for Windows — what it calls "a fully integrated suite of applications designed to help users more easily accomplish their work and common tasks from their desktop."

It uses what Novell calls "PerfectFit" technology to make all of the applications in PerfectOffice look and feel the same. Indeed, the icons, menus and dialog boxes are fairly consistent throughout all of the PerfectOffice programs, helping it keep pace with market leader Microsoft Office in terms of cross-application consistency within the suite.

PerfectOffice also incorporates OLE (Object Linking and Embedding) 2.0 throughout all of the key suite components and uses OLE to create what Novell calls "QuickTasks," which automatically perform common and complex computing tasks directly from the desktop operating system.

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without even requiring you to open individual suite applications

How It Is Sold

Like Microsoft Office, PerfectOffice is available in more than one edition The PerfectOffice Standard package integrates the WordPerfect word processor, Quattro Pro spreadsheet WordPerfect Presentations presentation graphics InfoCentral personal information manager Novell GroupWise E-mail, calendaring and scheduling and Envoy electronic publishing technology into one package PerfectOffice Professional mean while, includes the Standard product mix, with the addition of the Paradox database and the Visual AppBuilder custom application development environment

The real difference Novell brings to your range of suite choices is PerfectOffice Select This option lets you build your own customized version of PerfectOffice by choosing only the integrated components you want from a special CD-ROM

All of the applications in PerfectOffice Professional are included on the Select CD-ROM but they have to be "unlocked" when you load them By arrange things this way, you can even try a proposed suite mix for a limited time before deciding whether to buy it

To install a personalized suite from PerfectOffice Select you choose a "product mix" and then call a toll free number, request the applications you want to order, and then receive the access numbers necessary to install the suite At the same time you'll also receive a registration number to obtain customer support and special upgrade offers

Another feature in PerfectOffice Select called "PerfectLinks " even allows competing applications such as Lotus 1 2 3 and Microsoft Excel to be plugged into and played in a PerfectOffice Select suite environment

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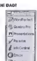

The Desktop Application Director (DAD) is a customizable toolbar that gives you easy navigation throughout the suite

The first thing you'll notice when you load up PerfectOffice is the Desktop Application Director (DAD) Like Microsoft s MOM (Microsoft Office Manager) DAD is a customizable tool bar that is supposed to let you users navigate easily through the PerfectOffice suite With DAD you can switch among applications automate common tasks and manage and locate and view files using your mouse. Like MOM and the Lotus Development SmartCenter (included with SmartSuite), DAD can be used as a floating tool palette and can be placed anywhere on the screen.

Automating Tasks

One particularly nice aspect of PerfectOffice is the way that it makes many jobs much more "task oriented" and allows you to think about what it is that you want to do rather than which application will be needed to do it.

One key to this task-based focus is the QuickTasks feature, which is accessible from the Desktop Applications Director It automatically perform tasks directly from the PerfectOffice desktop These are somewhat like Microsoft s Cue Cards and come with 20 predefined QuickTasks to automatically create letters faxes spreadsheets and slide shows update personal information management records schedule meetings, open e-mail generate mail merges and perform other common tasks right from the PerfectOffice desktop.

What takes PerfectOffice beyond where Microsoft goes with Cue Cards is the Task Expert which lets you create your own QuickTasks and add them to DAD. This means that well informed users and even developers can create highly customized, complex QuickTasks using the Visual Application Builder (VAB) included with PerfectOffice Professional VAB developed by Novell is basically the company s answer to Microsoft's Visual Basic for Applications (VBA)

VAB works reasonably well because PerfectOffice actually offers OLE 2 0 functionality in all five of its suite applications letting you drag and drop data among the PerfectOffice programs And with the in-place editing capabilities of OLE 2 0, you can directly edit any object from within different PerfectOffice applications For example a Quattro Pro spreadsheet embedded in a WordPerfect document can be edited directly from within WordPerfect By double clicking the spreadsheet, all of the functions of Quattro Pro are available from the WordPerfect pull-down menus and toolbars, so you never have to leave WordPerfect to edit the spreadsheet.

Meanwhile, If you include the Paradox database in PerfectOffice it serves as both an OLE client and server making PerfectOffice a potential solution for users who want full database integration.

PerfectOffice also contains a variety of cross-platform automation tools that help you get things done quickly For example, QuickCorrect automatically corrects misspelled words on the fly; and unlike Microsoft's AutoCorrect feature (in Word for Windows 6 0) QuickCorrect is available in several PerfectOffice suite applications, not just the word processor

Other Quick Tools available throughout the suite applications include QuickFormat, QuickList, QuickFinder, QuickMenus and QuickHelp And since all of the PerfectOffice applications share intelligent tools, you don't need to set aside additional resources or hard disk space to extend these automating agents across the entire PerfectOffice suite

A Good Cross-Platform Solution

There are many other interesting and worth while features in PerfectOffice, not the least of which are the applications themselves (WordPerfect Quattro Pro, Paradox, Envoy InfoCentral and GroupWise) These are all strong and professional implementations of their respective product groups but the real difference in PerfectOffice lies in the fantastic job Novell has done in tying all these applications together in a way that is often superior to similar efforts produced by Microsoft and Lotus. This is well worth a long, hard look if you are in the market for a suite application You might find yourself seeing Novell's suite as a way to get out of the (Microsoft) Office ❑

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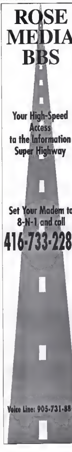
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BY JAMES MACFARLANE

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I had to sit through 10 minutes worth of trailers and advertising the last time I went to see a movie. I look at it this way: I paid my eight bucks to see the film. If they want to waste my time by shoving advertising down my throat they can pay me. Captive audiences are always taken for granted.

But what about advertising online? Would you be willing to sit through screen-sized ads and corporate logos every time you wanted to download a few files or read your e-mail? Probably not.

But what if it meant the difference between a free account and paying $20 a month? Would you go for it then?

Advertising And The Net

Most BBSes belong to some electronic mail network or another. The net is usually maintained and managed by one of the larger member systems. Each BBS has to apply to be a "node" in the net in order to participate. The rules of these nets usually state that they cannot be used for commercial advertising, except in specially designated conferences.

If one of the systems breaks the rules, they're usually ousted from the net. If one of the users on a member board breaks the rules, they often have their access to the net restricted or they're booted off the BBS completely.

On the Internet, there is no such control structure. No one really has the power to decide who has net access and who doesn't. The result is virtual anarchy, especially when it comes to advertising.

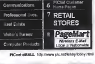
When someone broadcasts a commercial advertisement in an Internet newsgroup (Usenet), it is called spamming. It is very much frowned upon. Imagine you're reading messages about your favorite topic when you're suddenly blasted by a blurb on some pyramid scheme or a catalog from a mail order house. It's annoying and it's happening more and more often.

Sometimes these occur out of ignorance — the person posting the message doesn't realize that he or she is doing a bad thing, or doesn't realize that it gets broadcast all over the planet. But more often it's some bonehead trying to get rich quick by abusing the net to gain an advertising audience. Since everyone hates it, the scheme usually backfires.

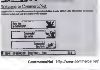
There are three things you can do: ignore it, retaliate, or complain to the system administrator of the host system the user posted the message from.

If you choose to retaliate, the easiest way is to reply to the message by private mail, quoting the entire thing. You don't have to say anything,

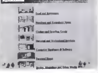
➤



PICnet eMALL http://www.pic.net/lobby/lobby.html



CommerceNet http://www.commerce.net/



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just send it back to where it came from. Chances are a few thousand other people will do the same, clogging the user's mailbox with junk and making normal communication for that person impossible.

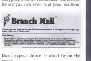
Complaining to the system administrator takes a little more work. Usually you can send a message to "admin" at the same site the user posted from. If they get enough complaints they'll probably revoke the user's account. America Online has a very strict policy — spam once and you're gone forever.

This is advertising we can all live with: if I want it, I'll go get it, otherwise keep it out of my face. No paper, no postage, no billboards. Made from 100 per cent recycled electrons.

Recently there was someone spamming in alt.revenge and people did complain to the sys admin, but their words fell on deaf ears because the sys admin thought that restricting the type of use (or in this case abuse) of his system infringed on his right to make money. Go figure. I'm sure he was mail bombed himself.

Empower The Individual Or The Corporation?

And don't think for a second that your local cable or phone company would miss an opportunity to feed you more advertising. The minute they get into the online service game you can bet that the majority of "services" they'll be providing will be tied into not unlimited access to the net, but rather some give-us your money home shopping scheme. I bet you'll have to navigate a shopping mall of commercial advertisers before you can even find your mailbox.



Don't expect choice. It won't be on the menu.

But despite the drawbacks of the "commercialization" of the net, there are some positive things happening. Many corporations are putting advertising online, but it's available on a self-serve basis.

Thousands of companies have decided to put themselves online by providing their own World Wide Web pages (the stuff you use Mosaic to see). Many are actually doing a good job of providing informative in-depth information on their products and even offer online ordering.

Web pages provide a self-guided look at a company's product or service. This is advertising we can all live with. If I want it, I'll go get it, otherwise keep it out of my face. No paper, no postage, no billboards. Made from 100 per cent recycled electrons.

If you want to check out some of this material, here are some good places to start. There is some pretty slick stuff on here to check out.

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http://www.cybermalls.com/index.html

CommerceNet
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We Test Online Services

BY GRAEME BENNETT

The Internet is all the rage these days but it's not for everyone For one thing it's a lot like the wild west — anarchic and uncontrolled, a giant, chaotic information ocean where anything goes And, if your child is a fan of say Barney the dinosaur a search of the Internet is just as likely to turn up a newsgroup like alt sex.barney or alt barney die die die as something you'd want junior to be seeing So for the young and/or sensitive, or simply those who can't be bothered to wade through mountains of unmoderated garbage (wags refer to this as a high signal to-noise ratio) a commercial information service is worth considering

ON TEST

(voice contact numbers)

• Genie	(1-800-638-9636)
• CompuServe	(1-800-487-0952)
• America Online	(1-800-827-6364)
• The Microsoft Network	(beta - not yet available)
• eWorld	(1-800-877-8129)
• Prodigy	(1-800-776-0836)

Here are our impressions of the most popular info services.

Prodigy

Getting started. •••••
Content •••
GUI •• (v1 1 tested)
Value:••••

I'd have to give Prodigy top marks for its sign-up process The customer service department (available at the 1-800 number listed above) is open 24 hours a day 7 days a week. The company sends out a free starter kit for Windows (5.25 or 3 5-inch disk) or Macintosh According to the company only the Windows version currently provides a World Wide Web browser and supports Internet access.

By adding WWW Prodigy becomes as Duncan Strong of IBM puts it, "a real no-brainer way to get at the Internet." Indeed, Prodigy finally has the upper hand over AOL and CServe, since neither of them support WWW — yet

Prodigy's price per month is quite reasonable After the first month, which is free you pay US$9 95 per month which gives you 5 hours of access If you use more time than that you pay US$2.95 per hour There is no surcharge for Canadian access A major credit card is required to sign up

Compare this to the rate structure of IBM's own Advantis system (Prices are all in Canadian currency effective as of March 1)

Advantis Registration fee $25

Casual User Rate $9 95/mo for 3 hrs/mo access, $3/hr thereafter

Comprehensive $29 95/mo for 12 hr/mo access $1 50/hr thereafter

If you are not in an area with a direct Advantis line (e g most metropolitan areas) there is an additional $13/hour surcharge for access to the 1-800 number

Prodigy, which took a lot of heat in its early days for its ever present on screen advertising no longer subjects its users to this intrusion A co-production of IBM and Sears, Prodigy is a moderated information

➤

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system meaning that the content is pretty much guaranteed to be family-oriented — no swearing or naughtiness allowed.

Among other content available online Prodigy supplies access to an online edition of the Academic American Encyclopedia, e-mail and a variety of online shopping venues

There are several reasons why Prodigy is a good choice for families with children

We soon discovered that there is no way to use a credit card with another person's name on it I tried to use the publisher's credit card number for these (ahem!) tests, but Prodigy apparently thought I was up to no good and wouldn't allow it unless I signed in with the last name Alder In retrospect this is probably a Very Good Thing

Similarly, when you jump to the World Wide Web area of Prodigy the system warns you that you are about to enter an uncensored uncontrolled area, which may contain explicit or obscene material etc etc You have to explicitly grant permission to any family members you wish to allow onto the World Wide Web This is another reason we think Prodigy is a good choice for families with children

Although the company says that an improved faster Windows version of the client software is in the works the version currently being sent to new subscribers — and available with many consumer PCs such as those from AST — is essentially a DOS application adapted to run under Windows And I have to say it is ugly! The new interface will be a welcome sight around my house Cosmetic appeal — or lack thereof — notwithstanding Prodigy is one of the best choices in online services especially for those who want a simple way of getting onto the World Wide Web

According to Prodigy spokesman Mike Darcy the company is working on a new version of the Prodigy software with proper menus, pop ups scrolling windows, and so on which Windows users have come to expect as the norm The new release code-named "P2," will be a true Windows application and will also be available for the Mac with a true Mac interface Darcy says the Windows release is expected sometime this Spring with the Mac release coming later in the summer

Darcy says that, with P2 the company plans to embrace the Internet in a big way. The service will all be HTML — hypertext markup language We can have a direct linkup from our story to related information on the World Wide Web We're going to make Prodigy and the Internet virtually seamless."

Genie

If you choose to not use a GUI (as we did after being frustrated by the sluggish and otherwise problematic Front End) you can get around by either selecting items from menus or by typing shortcuts M605 3 for example is the code that takes you to the Macintosh file library Not exactly intuitive but about ten times as fast as wading through a bunch of menus, and about 50 times as fast as the Front End Other commands are also rather arcane rea all dat>950101 is the command to read all messages created since Jan 1 1995

While we normally wouldn't bother memorizing such arcana the Front End proved to be so utterly bad that this was by far the lesser of the two evils.

On a more positive note this character based interface had a couple of strong benefits. For one thing, it made the acquistion of messages lightning fast. We typically entered a message area, turned on our telecom program's "Capture to disk" function, and then used the READ command as listed above to rapidly retrieve the entire message area The first message presents an option to press Enter or "S to scroll:" choosing the latter option downloads the whole shebang in one easy step

File libraries are similarly convenient to browse from newest-to-oldest. Typically, we sign on once per week and access our favorite libraries (say, free programs for Windows or Macintosh) The list of programs scrolls by, with a convenient description of each one If you like the look of something, you can download it to your computer

GEnie does not currently provide access to the World Wide Web however, e-mail

➤

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and other Internet services are provided

Although Genie is the smallest of the "big four" (with CompuServe, AOL and Prodigy being the other three) it has some excellent technical forums, including a DTP roundtable hosted by PostScript guru Ron Lancaster

CompuServe

Getting started ••••
Content:•••••
GUI •••
Value ••••

CompuServe is the largest commercial information service and it shows This is the place we've found to be the most likely source for patches updates and message areas in support of software and hardware vendors, or virtually any other topic that interests us.

Aside from computer related topics CompuServe, like the other services mentioned here has a good selection of special interest areas While we also use the Internet to search for information, CompuServe is still the place we most often locate info or programs we can't get anyplace else

Although CompuServe once had a reputation for being expensive, recent price cuts have made its costs much more reasonable. Like Prodigy, CompuServe forums are "moderated," making it a good choice for families with children

When we called the 1-800 487 0952 number to subscribe to CompuServe, the operator told us that as a TCP reader, we were eligible for a free startup kit including a disk for DOS Windows or Macintosh, one free month of service and a US$15 usage credit The operator also pitched an optional value pack, which he said was available for US$30 This kit comes with a 550-page book called Inside Compuserve a 200-page user guide and a CompuServe mousepad

The graphical interface most people use to access the service (and the one they send in the aforementioned kit) is CompuServe Information Manager Mac OS/2, and Windows versions are available We tested both and while they are superficially similar, the Windows version is definitely superior It automatically minimizes "parent" windows, while the Mac version closes them, making it difficult to back out of an area (especially if you don't notice the "Leave" menu command that performs this function)

The Windows version also adds speech to the interface — a gimmicky but appealing feature for beginners or kids.

Our least favorite feature of CIM is the method it uses to browse file libraries. The names are all listed in DOS NAME.UGH format to find out what the file actually does you have to select it, and then read its abstract, which is a fairly slow process

We're not too crazy about CompuServe's continued use of numerical user IDs either Although the company is said to be working on supporting real (alphabetical) names at the moment you have to contact The Computer Paper on CompuServe by sending e mail to 72627 1732 In early February, CompuServe reported that it planned to offer access to the World Wide Web in "thirty to sixty days."

Users will connect point-to-point (PTP) through the online service provider's more than 400 local points-of-presence (POPS) and use the browser of their choice. CompuServe already has two forums which are designed to offer Internet and Web information on protocol, browsers, navigation, "netiquette," and user questions.

Speaking to Newsbytes Pierce Reid, CompuServe spokesperson, said, "Any of our members are able to get whatever information they need to assist them with access and navigating the Web Typical of our policies we are rolling this out in a way which works best for our users and for the Internet community at large"

CompuServe already has more than 150 different cities in which members may access the service at 14.4 kilobits-per-second (Kbps) and Reid says the company is beta testing 28.8 Kbps access in limited tests The higher bits per second rates are important for fast access and full video and audio effects of the Web

Currently, CompuServe says it offers 92 percent of the US population local call access Local access allows users to avoid long distance telephone charges

Reid continued, "We are pleased to be able to offer our members the Web and in a way that they can use the browser of their choice We will be glad to help them learn about different browsers through our forums and we think the ability to choose their own browser will make the service more successful and popular"

Accessing the Web through CompuServe is priced at the company's newly announced hourly rate of $4.80 Reid said there will be no premium charges and the access will be offered across the board to all CompuServe members

America Online

Getting started •••••
Content ••••
GUI ••••
Value ••

America Online recently dropped its hourly surcharges for subscribers in Alaska and Hawaii. This leaves Canadians (and presumably, Mexicans) looking like suckers AOL charges a 20-cent per minute surcharge for Canadian access — and this includes the "complimentary introductory access" period So even though we only used a portion of our "free" 10 hours, we still ended up with a $67 charge on our Visa bill

Its outrageous Canadian pricing aside America Online is a good choice for users who favor user-friendliness and a sophisticated graphical interface Parents can lock out certain naughty areas, of which we've noticed there are quite a few Perhaps because of this, we've found that AOL tends to have quite a few "anklebyters" — juvenile users whose behavior reveals their lack of maturity

This service is perhaps the best choice for Mac users, as there is a lot of Mac-specific content presented in a typically Mac like way Windows and GEOS users will also find AOL the most friendly of the big services.

The Microsoft Network

Getting started: •••••
Content (N/A)
GUI •••••
Value (N/A)

➤

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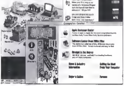
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News & Industry Information
Getting the Most From Your Computer
Buyer's Guides
Forums
Info
Directory

The only one of the services mentioned here that is not widely available yet we nevertheless included MSN in our list because it is going to be bundled with Windows 95, which we expect to be available sometime this year Or maybe not

MSN is mostly notable for its extraordinary integration with the Windows 95 GUI It's the best online interface we've seen yet — because it doesn't look like you're online at all More than anything, it simply seems like there's a lot more content available on your own hard drive

Messages are in Rich Text Format, supporting color fonts, various point sizes and other typographic subtleties, files can be included in a message simply by dragging and-dropping and the interface dovetails nicely with the look and feel of the overlapping windows-and-folders metaphor that Windows 95 uses to manage files

The system automatically looks up the closest local access number (there were two in our area) and sets up the account Although MSN was not charging for access when we performed our tests we expect that a major credit card will be required to sign up much as the other systems require.

Of course being a beta release, there wasn't a whole lot of content in MSN when we went a-browsing but we expect this to change Initially MSN will be specific to Windows 95 (a Mac client is promised 9 to 12 months down the road) but, for these users it will provide a source of information and links to the Internet that is more user friendly than any of the other systems we've seen. We'll have more info on MSN RSN

eWorld

Getting started •••••
Content ••••
GUI ••••
Value ••

eWorld looks to us a lot like America Online just emptier eWorld is also the only one of the systems mentioned here that does not have any areas that are free. This means that if your doorbell rings, you can't duck into a free support area. You have to log off, answer the door then log on again.

Currently oriented toward Apple users, Apple is working on a Windows version of the software and expects to support Windows in the not-too-distant future

eWorld recently lowered its rates and eliminated its annoying business hours surcharge. As reported in a recent edition of TidBITs, a Mac-oriented online publication (www tidbits.com) eWorld still costs $6 95 per month for subscribers in the U S. and Canada, but subscribers can log on for four free hours instead of two. After the first four hours, all additional hours cost $2 95 instead of $4 95 Subscribers from other countries are now charged $9 95 per month with one free hour, and then $9 95 per hour after that eWorld also announced that they are working on the next version of eWorld for Macintosh software (the first release of eWorld's Windows software is scheduled for sometime in 1995) The software called Golden Gate for now, is planned to have better Internet access, increased speed, improved email, plus new multimedia and text-to-speech features In additional eWorld related news eWorld recently announced that three additional news services have joined its line-up U K. News Today (news and business from the U K.) Global Grandstand (international sports coverage) and World News Watch (reports of news events world-wide) as well as United Press International's consumer news service called UPI News You Can Use. See TidBITS-237 for more eWorld information.

Despite these recent additions, we found that eWorld has less content available online than any of the other major services. To be fair this is primarily due to the fact that it's newer than the others. And the user interface, which is based on the metaphor of a city, is both cute and intuitive (in the winter the streets even get covered with snow) But will it grow? Honestly I don't see much of a raison d'etre for eWorld. There is little if any content available on it that we haven't seen elsewhere. Unless Apple adds some compelling reason to lure users to its service (and that, of course is expensive — just ask Sears and IBM who have yet to turn a profit from Prodigy) I don't see a bright future for eWorld. ☐

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SLIPing on a Shell

BY FRANK GARCIA

At last it is now possible for computing enthusiasts who have a mere UNIX shell space to participate with full GUI programs, by installing a piece of software that 'emulates' SLIP or PPP accounts. This means applications such as Netscape can be run using a UNIX core account.

There are four applications or utilities (that we are aware of) which allow those on Macintosh, Windows or UNIX platforms to join millions of others with greater facility. The utilities are TIA — The Internet Adapter for Macintosh and Windows 1.0 users, SlipKnot 1.05 (beta) for Microsoft Windows 3.1 users, Term 2.2 (beta) for UNIX, and TwinSock 1.2, also for Windows.

TIA is an Internet 'access' utility developed in 1994 by Cyberspace Development Inc. who wanted to allow users of a shell account without SLIP/PPP privileges, to access the Internet using their exciting GUI programs. TIA uses the host computer's IP address to provide the SLIP like features. Currently TIA provides Single User and Host licenses for multiple users. At the moment, the utility is graded for SLIP emulation with PPP planned in the next version 1.1. TIA provides Evaluation licenses for 14 days for a single user. Thereafter, TIA costs U.S. $25.00 for Single Users license and $495 for up to eight concurrent users on a Host license. For more information write to: TIA Sales, InterMind Corp., 1101 N Northlake Way, STE 106, Seattle WA 98103-8901.

For general information, send a blank e-mail to

tia-tcpip-info@marketplace.com

For more information for a single user send a blank e-mail message to

tia-single@marketplace.com and a computer will automatically send you license codes and information on how to obtain and install TIA via an anonymous FTP transfer.

Or, point your web browser to http://marketplace.com/ for complete information on this utility.

SlipKnot is a features-filled WWW shareware browser published by Macromind Inc., that does not require a SLIP or PPP account. Similar to Mosaic. Version 1.0 was released in November 1994 and version 1.05 (beta) is now available.

With SlipKnot, it's possible to retrieve documents in the background while browsing in the foreground. Like TIA, it's also possible to switch at leisure between the WWW and your shell account, except when downloading a document. SlipKnot's multi-tasking also becomes clear when you realize that up to five different documents can be displayed at the same time. The user can call up a document without waiting for it to appear before calling up another one.

SlipKnot also saves entire documents including embedded pictures for later offline demos. Astoundingly, the application is self-upgrading! With a 'one-touch' upgrade button, the program seeks out and downloads upgrades that are filtered into the program's built in updater.

Knowledgeable users can also test the creation of their own HTML Web pages offline. Additionally an optional scripting program is available to automate the login process. Gopher links, Z-modem and Kermit are supported, but limitations do exist. The app doesn't support fill in forms just yet, but it is planned as part of the 1.1 upgrade. Document retrievals are only on the HTTP and FTP protocols, not Mail or Wais. SlipKnot is also set for 386 PCs, with at least 4 megs of RAM recommended. SlipKnot is US$29.95 shareware. Look for the file "slnot100.zip" by FTP from the following sites:

oak.oakland.edu/SimTel/win3/internet
ftp.uoknor.edu/mirrors/SimTel/win3/internet
ftp.netcom.com/pub/pbrooks/slipknot

A FAQ list titled "snlfaq1.txt" for SlipKnot is available at:

interport.net/pub/pbrooks/slipknot

If you have a WWW browser already (lynx and www are fine) then SlipKnot's Home Page can be accessed at:

http://www.interport.net/slipknot/slipknot.html

Term 2.1, according to Dr. Bill Reimers, who works at the Physics department at Purdue University, "isn't really a SLIP/PPP emulator, but it is a complete alternative." Term's function is to multiplex a serial line and allow network connections (allowing for graphical Internet apps to kick in and work). Term's advantage is that it can be run entirely from user space, requiring no support from system or network administrators.

Reimers is one of 27 programmers who have their fingerprints on the improvements of the application. Term was originally created

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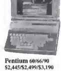

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ITAC Conference Ponders Information Future

BY GRANT BUCKLER

Rapid Change, Chaos In Info Community
The world and especially people who work in information technology, should be preparing for a time of "chaos panic and golden opportunity" members of the Information Technology Association of Canada were told at their annual conference in late February

Frank Ogden, a Vancouver-based futurist and author of "The Last Book You'll Ever Read" said in the conference's keynote address that the pace of technological change continues to accelerate, and only those who can adapt rapidly will prosper

Ogden presented a sometimes wide-eyed montage of examples of technological change, both real and projected, from a $100 video camera that sits on top of a computer monitor and allows videoconferencing over the Internet – with limited video and audio quality so far, he admitted – to the brief mention of a scheme to have dolphins and humans transmit thought waves from a glass bubble in space

Quoting Charles Darwin Ogden noted that "it is not the strongest of species that survive nor the most intelligent, it is the one that is most adaptable to change"

New Technology In The Workplace
Now is the bleakest time in the transition of the workplace from the industrial to the information age and people are resisting the change. That resistance is either a symptom of outmoded ideas or a useful source of information for technology planners according to speakers at the conference

Dr Marir Smye, chair of PeopleTech Consulting Inc., described the transition as "the collapse of the Jurassic organization" Organizational structures are changing "We're not going to be able to put them nicely on a little napkin when we're out for dinner any more" This is good Smye said, but at the moment many people feel overwhelmed by the pace of change

If organizations can adapt Smye said information technology can be liberating so "let's stop resisting and let's leave the industrial age behind." ❑

SLIPing on a Shell

Continued from page **86**

by Michael O'Reilly (who wrote and maintained it up to version 1.14) Riemers says that users have reported that "in some cases TIA seems faster in others Term seems faster My general conclusion is that Term is faster by design but more sensitive to serial problems sometimes slowing it down considerably"

With regard to support Riemers says that Term doesn't support MS-DOS Windows or OS2 but it does cover more Unix sites than TIA "Term can handle virtually any type of serial line while TIA only works with 8 bit clean lines" he says

Term is available by FTP and Web transfer sites listed below

FTP

sunsite.unc.edu:/pub/Linux/apps/comm/term/<whole-directory tree>
sunsite.unc.edu:/pub/Linux/docs/HOWTO
physics.purdue.edu:/pub/bcr/term/<whole-directory-tree>

URL

http://sunsite.unc.edu/mdw/HOWTO/Term-HOWTO.html
http://zeus.cs.kun.nl:4080/term-howto/Term-HOWTO.html
http://physics.purdue.edu/~bcr/homepage.html

Term is freeware and Riemers says that "users are allowed to redistribute and make any changes they want so long as they include the source code"

TwinSock 1.2 for Windows developed by Troy Rollo, is freeware According to comp.os.ms-windows.announce statements TwinSock should work on "any" dialup line.

To obtain this application look for the file "twnsck12.zip" by FTP at the suggested locations:

ftp.cs.odu.edu/pub/zeil/cs412/modos/twnsock
mrcnext.cso.uiuc.edu/pub/win3/winsock
ftp.u.washington.edu/pub/user-supported/gnarthey/www

Finally as a postscript, Internet users frequently discuss their adventures using these programs on the comp.infosystems.www.users newsgroup as well as in alt.dcomp.slip-emulators comp.os.ms-windows.networking.tcp-ip and comp.os.ms-windows.apps.comm. ❑

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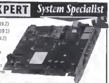

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GAMES

A Virtual Adventure With The Gods

BY GORDON GOBLE

Title Wrath of the Gods
By Luminaria (Distributed By: Maxis)
Contact: Luminaria At (415) 821-0536

Take a generous dose of mythology, stir in equal amounts of adventure and role playing add photo realism graphical puzzles a klutzy but likable hero and some genuinely funny blasts of good humor and you have a winning recipe, the recipe used to create Wrath of the Gods, a graphic adventure game with a difference

Based on the bizarre exploits and fantastic tales of Greek mythology Wrath of the Gods puts you in the driver's seat as an all-encompassing composite hero Your job description? Well although there's really just too much to mention here (game publisher Luminaria promises over 40 hours of game play) the general idea is to re-establish control of your kingdom from the sometimes goofy, magical and often downright rotten to-the-core forces that are wreaking havoc throughout the land You'll come face to face with many of the primary performers of Greek mythology — Pegasus Zeus the Cyclops Medusa, the Golden Fleece, they're all here! Why it's like a Greek myth All Star Game!

Like most games of this genre, you'll be expected to travel far and wide interacting with the various characters and scenarios encountered en route While your quest may be aided by certain situations others are just plain interesting and some may be quite detrimental to your health and well-being Decisions and actions are governed by common sense game experience and a knowledge of Greek mythology that is reinforced by an in-depth easily accessible on screen "Info" line Finally if all of the above fails to clue you in to the proper procedures for a given situation Wrath of the Gods comes complete with its own built-in hint line — the "Oracle" — which supplies increasingly more explicit suggestions at the expense of accrued points. But considering that 500 points is a perfect score, and a series of hints may well cost 20 the Oracle should only be consulted when all else has failed Although at times too tempting to resist the mere presence of the Oracle is just one of the many treats offered up by this program.

Of particular interest Wrath of the Gods is one of the first adventure games to offer a photo-realistic environment from which to conduct your heroic mission Although generously interspersed with animation (let's face it it's hard to find good footage of a dragon or Hydra!) Wrath of the Gods nevertheless gives us gorgeous real-life Greek geography castles, characters and much more While game players won't feel totally immersed in a live action movie (most scenes feature a still photograph layered with in-studio shots of one or two semi-mobile characters — sometimes just a talking head surrounded by a static body and hair) this technology is a definite cut above the cartoonish tact inherent in most adventure games I found this approach lent a sense of credibility that made the whole idea infinitely more palatable

For those unfamiliar with adventure games Wrath of the Gods (aside from its photo-realism) sports an interface typical to

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the genre While most of the screen is filled with the current scene a series of icons are lined across the bottom, permitting the game player to eyeball pick up use talk to or walk to a given object Clicking on the "hand" icon, for instance then clicking on, say a tantalizing gemstone will direct your on-screen persona to pocket the valuable rock. Likewise clicking on the "Walk" icon then clicking again at the edge of the screen will instruct your character to walk off screen and into the next scene It's all pretty simple to pick up with a little experience and newcomers will find the complexity of actions governed by such a seemingly limited amount of directions is really quite amazing.

In Wrath of the Gods a solid mix of intellect, on hand resources, luck, and timing add up to a successful endeavor Please accept the following example of Wrathian scenarios for your approval

While strolling by a seemingly innocent farmer's field you happen to remember the handy-dandy mystical seeds you'd purchased some time ago Spreading the seeds on the field (humming a happy tune while sowing!) the unexpected happens Out of the field grows an army of supernatural warriors bent on doing you in! Despite their evil intent however they are sporting, and quickly explain that they "...Won't fight you dude unless you have a blade"

Taking leave of the armed infidels you know that the next time your paths cross you'd better be packing a sword.

Later happening upon a tremendous boulder you are compelled to discover what lays underneath Although the boulder will not budge with sheer brute force you take advantage of your quick mind (and perhaps a little assistance from the Oracle) to realize that said boulder may be displaced with a little leverage Without divulging important details, the boulder is moved aside revealing a stunning example of sword craftsmanship On to battle!

After locating the fateful farmer's field once again (which takes a little doing Greece is pretty tricky after all!) the fight is commenced! While you can't directly control each thrust and parry your digital representation fights brilliantly (and even better with a little magic elixir) Dutifully dispatching the first dozen denizens of doom It soon becomes clear that these guys just keep on coming What to do? Well to capsulate, if you've been obediently snaring objects throughout your travels there's another weapon in your arsenal that will cause these no-goodniks to begin a little in fighting, to the finish! If you play your cards right you'll be on your way in no time at all, 25 bonus points richer

Sizing up each given situation keeping written notes on locations and characters constantly consulting one's inventory, then using various implements in harmony with others is needless to say, all-important Although it may seem ridiculous that our hero manages to pack around a set of rowing oars a sledgehammer, a vat of liquid an archery set and numerous other sizable objects all at one time such is the nature of this and most adventure games and certain suspensions of belief are necessary

Much of Wrath is tongue in cheek, and more than once our decidedly clumsy hero is made to look the fool Even sarcastic fire breathing dragons are good for a laugh and when confronted with our hero in an arcade-style "shooting gallery" may well taunt "What's that little thing? A bow and arrow? You couldn't hit the Parthenon if you were three feet away! Hah, hah, hah!" or "Missed me missed me now you gotta kiss me!"

Goats belch after quaffing large amounts of water swarms of bees will congregate around your person and follow you around for awhile and generally the comedic rules of Monty Python are the order of the day

First time adventure gamers will appreciate the second chances offered by Wrath. Although certain sticky situations may end up in the worst possible way the gamer never "dies", and at worst will receive an audience with the gods, a slap on the wrist and another go One will have no alternative but to learn all about mythology in the process and the overall experience is entertaining and certainly compelling

Due, no doubt to its complexity and quasi-interactive movie format Wrath of the Gods is a CD based affair which means movement through the various screens even with a double spin drive is painfully slow This is one drawback albeit a prominent one in an otherwise enjoyable package 8 MB RAM, Windows 3.1, a double-speed CD drive and a mouse are required equipment. ❑

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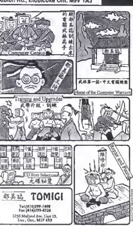

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CD REVIEW

Find Out The Way Things Work, Including Your CD-ROM

The Way Things Ought To Be

BY BOSS MACDONALD

Product:	The Way Things Work CD-ROM
From	Dorling Kindersley Multimedia through: General Publishing 30 Lesmill Road Don Mills ON M3B 2T6 416-445-3333
Price	$139.95

If you've ever gotten an instant Afro while fixing the family toaster or blown your fuse while fixing a lamp The Way Things Work by David Macauley is the CD-ROM you've been waiting for.

Two and a half million of you already know about Macauley's unique and appealing approach to explaining technology as that's how many copies sold of his book on which this disk is based. From "airliner wing" to "zipper" Macauley explains more than 200 inventions using the book's original pictures and text but now with animation and audio too.

And helping out along the way is Macauley's faithful Woolly Mammoth largely employed to demonstrate the scientific principles behind each invention.

In a section called "Mammoth Movies" there are 22 individual cartoons in which scientific principles are demonstrated through Macauley's reminiscences on the partnership with his precocious pet pachyderm. Inclined planes for example, are brought to life in the movie of Macauley's capturing a mammoth.

It's too bad you can't actually see these movies now because short as they are they'll have you in stitches whether you're interested in the science involved or not.

Other main sections of The Way Things Work include a biographical gallery of "Inventors" which gives a thumbnail sketch of each as they relate to the machines discussed and a "Principles of Science" section which again draws on the paws (?) of the Woolly Mammoth to illustrate basic topics in physics like friction leverage and magnetism.

The "History" section goes one step further by organizing all the inventions onto a timeline beginning with "ships" at 7000 BC and ending with the "Astronaut Maneuvering Unit" invented by NASA in 1984. Click on any of the inventions and it leads to all the other related stuff elsewhere on the disk.

By the way in case you were expecting to find the personal computer at the end of the timeline, it's credited to Edward Roberts (who?) way back in 1975. The entire entry reads "The first personal computer was designed in 1975 by Edward Roberts, the president of the American company MITS Inc. The computer was called the Altair 8800 and was sold either in one piece or as a kit for people to build themselves. It cost only one tenth of the price of the next cheapest computer on the market." Pretty bare bones, I know but you have to keep in mind that the point of the disk is not to provide a comprehensive history of each invention's development, but instead to show how they actually work.

To that end when you do choose an invention you get a clear but amusing illustration showing all of the component parts. Clicking specific points on the picture might start an animation, create a new window with explanatory text or both. But all in faithfully frivolous fashion.

Being a highly sophisticated CD-ROM — despite the child-like disguise — The Way Things Work achieves its titular goal well and is cross referenced throughout so that all sections are linked by a general index the main menu and hot spots that lead to related machines and information.

Of course, in addressing such a comprehensive list of machines there's bound to be lots on The Way Things Work that you'll likely never want to look at. After all how many normal people are interested in how an absorbent separator works? Still there's plenty of other practical stuff — like mixers clutches, VCRs CD players and the like — to ensure that this disk will always be kept handy near the family PC.

In fact the only disagreeable aspect to this entire disk is the price. Suggested at $139.95, Dorling Kindersley may be being a bit too ambitious in this age of just about everything on CD-ROM dropping below 50 bucks. But I haven't seen The Way Things Work for sale anywhere for much less than they're asking.

Notwithstanding the price, this is a disk to shame many others by demonstrating what a CD-ROM could and should be. It's highly involving and interactive, well thought out fulfills the box's promises and has something real to offer at the same time. With that in mind it's a definite best buy in spite of the price. ❑

CD REVIEW

A CD-ROM Celebration of 20 Years on TV

Saturday Night Jive

BY ROSI MACDONALD

Product.	Saturday Night Live: The First Twenty Years (Two "dual format" –Macintosh and PC– CD-ROM package)
From	GameTek Inc 2999 Northeast 191st Street, Suite 500 Aventura FL 33180 Ph 305-935-3995
Price	$59 ($5,000 Cdn Lighten up people just kidding)

The first time I ever saw Saturday Night Live was at a friend's place in 1976. Elliot Gould was the guest host and all I clearly remember was a take-off they did on the final episode of Star Trek — with John Belushi as Captain Kirk — that had me literally rolling on the floor.

Despite how long long ago 1976 might seem to many of you, Saturday Night Live was already a well-established show by that time. Premiering in 1975 it ran only every second Saturday in those days, ostensibly because the producers felt it took two weeks to put a good show together. And judging by the anemic weekly version that's served up these days, they were probably right.

The point of all this is that Saturday Night Live celebrates its 20th anniversary this year surviving somehow in its current state of embalmment. And CD-ROM publishers, GameTek, are holding a celebration of their own by producing this new two CD-ROM set of clips from the show.

Which is literally all this package amounts to. One disk is called "The Classic Years," the other "The Current Years," each containing lots of skits and original songs from their mandated era. The music sections are somewhat disappointing though, because they only include songs performed by the show's cast members — probably some kind of copyright snarl or the like. So you won't see any of those rare performances by real stars like Leon Redbone, for example, who was virtually unknown before his appearance on the show in the late 70s.

Likewise, an as yet obscure Steve Martin became significantly less adumbrate thanks to NBC, particularly after showing up one Saturday with his brilliant and enduring "King Tut" song, which fortunately is included here. But be warned, all we get of that classic ditty — and so many others — is the final 30 seconds or so.

Still, you'll find a smattering of just about everything, from those glory [illegible] classic political sketches, coneheads, even a few of those classic commercial parodies that people still laugh about today.

But, of course, we can't ignore the newer stuff found on Disk 2, despite how all of us post-teens might feel about it.

Using the same graphical interface as Disk 1, "The Current Years" has to be loaded and launched as though it were a whole new product — very frustrating and time consuming.

Once going, though, we can fortunately ferret out a lot of good stuff buried among the dross that mars Saturday Night Live's more current incarnation. Ed Grimley is in there and that "meisteroonie" guy, but they're largely presented in samples too small to really savor. There are exceptions, however, like that fabulous Wayne's World in Madonna's bedroom episode which you can watch almost in its entirety.

It's almost worth having these disks just for those individual moments of genuine comic brilliance that have managed to stave off total rigor mortis for so long.

But it still all boils down to clips, though — strangely, no associated history is given. When you choose a sketch, or Weekend Update episode, or song, or commercial, virtually no background information shows up, not even the date it originally aired. So if you're looking for any insight into Saturday Night Live — how the show came about, what's involved in producing or writing it, amusing anecdotes between the stars — you're definitely knocking on the wrong door.

That said, however, the package does include a little picture book called "A Week In The Life of Saturday Night Live," but what that consists of is a woefully inadequate 16 pages of captioned backstage pictures taken during a recent Kim Basinger/Alec Baldwin show. But at least it affords a slight peek behind the scenes.

The back page reveals that this "brochure" is only a sampling from the big, 264 page companion anniversary book that's available for $25 along with two full-length video cassettes that can be had for the same price.

You may have figured out by now that you've got to be a real fan to get any genuine satisfaction from this CD-ROM cum Book cum Video combination, but with its relatively modest price tag, at least it won't break you, even if you're only mildly [illegible] ❑

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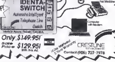
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CD REVIEW

Out Of Africa

And With This CD-ROM You Can Stay That Way

BY ROSS MACDONALD

Product:	Safari
From	Medio Multimedia
MSRP	$59.95

Well grab me a pith helmet and call me Bwana Thanks once again to our friends at Medio Multimedia, our computers can now take us on an African Safari Mind you, this isn't a relic stealing elephant shooting, Indiana Jones or Colonel Blimp type Safari In keeping with the politics of Bridget Bardot this is strictly a photography expedition

In fact it's soon made abundantly apparent by our intrepid guide award winning photographer and author Jonathan Scott that we're being encouraged to actually go to Africa using this disk as a kind of prep session He even provides nature photography tips to get you enthused at the prospect

But the photography tips are in only one of seven main sections each literally bulging with pics of the East African wilderness and the wealthy tourists that choose to dare its perils from a parade of air conditioned Land Rovers

The choices presented by each section range wide across the CD-ROM back country to include everything from complete guided tours of several Tanzanian parks and reserves to a field guide charting the life stories of about sixty native wildlife species—from Antelope to Zebra

But Medio is a publishing company well aware that any CD ROM dishonors the family name if it doesn't move so they've made sure to include 40 video clips — unfortunately short — showing some kind of animal getting up to some kind of mischief — like a lion family dining al fresco at the Zebra cafe – with no narration because what's going on is pretty self evident

But besides such bare nature footage some of the videos do offer some kind of educational comment so we're not left entirely to our own devices with nothing to do but watch gamboling African fauna

Unfortunately, most of the videos are buried deep inside each of the disk's sections though there is a small video gallery that gives direct access to nine of them

The heart of this disk, however is the section called "On Safari " a kind of atlas of Africa that allows you to zoom in on specific locations within Tanzania from a starting point that shows the entire African continent But where that might sound mighty useful, this feature has only one all too obvious point — steering us toward the East African region that Jonathan Scott wishes to guide us through

None of the intermediate maps provide any detail beyond major features of the landscape, place names not showing up until you're where Scott wants you to be But it does at least give some sense of geographic context for the safaris we're invited to undertake

Once fully zoomed in, you can choose from about a dozen individual safaris through places with names like Mitt Mbill [Meetee Umbeelee], Leopard Gorge and Hyena Lookout And of course, no safari document would be complete without including the much celebrated Serengeti

Each "safari" begins with a wide angle photograph of the location's terrain but one that's peppered with "hot spots" which, when clicked with the mouse, lead to another photo and related narrative clip

Though not for everybody Medio's Safari is about as close as you can get to the real thing Between the hundreds of high resolution photos the videos the maps the narration the photography tips and the ecological information, this is one of that relatively small group of CD-ROMs that's likely to garner a lot of repeated play

And with a suggested retail price of only $59 95 — and you're likely to get it a lot cheaper — it's a lot more practical than accepting Jonathan Scott's invitation

"Where's my mouse Ma? I'm off on Safari!" ❑

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CD REVIEW

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BY BOD LAMIRAND

Product	JumpStart Kindergarten
From	Knowledge Adventure 4502 Dyer Street La Crescenta, CA 91214 918 542-4200
Street Price	$50 $60

Jump Start Kindergarten is a CD ROM based DOS program that targets 4 6 year olds and it is worth its weight in gold if you need a little time to read the paper after dinner

The program's interface uses the metaphor of a kindergarten classroom Around the room are tables and counters, chalk boards and a few children Doors are to the left and right and there are large windows at the back There is a TV an aquarium, (which is being used to house a hamster), and a closet. Various toys and classroom supplies lie about

As one would expect clicking on an object brings up an exercise Some exercises are quite sophisticated such as, for example a sequencing exercise called The Garden Here, the child must observe the order of plants and vegetables that grow, and then guess the next item in the sequence (e g , carrot carrot lettuce, carrot, carrot ?). As the child succeeds, the sequencing becomes more complicated (Rose, carrot peas peas, Rose carrot, peas ?) If the child doesn't respond correctly the program reverts to a more simple sequence Or the child can click on an arrow and return to much simpler tasks like listening to the alphabet or playing songs

The CD will play in your CD player as long as you skip the first track There are 11 exercises in all covering a broad range of skills The program keeps my four year old daughter engrossed for hours at a time There are numerous explanations in the documentation of what is being learned and how, but, most importantly kids like playing with the program

Although Kindergarten Adventure claims to be Windows compatible you might be better off just starting it from DOS The install program will create Window's program groups and icons but all the program does is exit Windows and then run the DOS executable Once running, you cannot Alt Tab between programs nor use your Window's Print Manager, Clipboard or anything else When you quit the game the program reinitializes Windows

Otherwise it is a fabulous piece of edutainment for your child As a parent and a high school English teacher I give Kindergarten Adventure a gold star ❑

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macsection

Apple Intros Earth Explorer

NB — Apple Computer has introduced "Earth Explorer," an interactive CD-ROM about the interaction between humans and their natural environment. The software was developed in cooperation with the American Association for the Advancement of Science and the National Science Foundation.

Earth Explorer, aimed at children ages 10 and up, is the second title in the Apple Home Learning line of educational software for Macintosh and Windows-based personal computers.

The software contains hundreds of articles illustrated with graphics and movies, simulations based on real data, animations designed to explain environmental concepts, and interactive games.

Apple is also offering a teacher's edition of Earth Explorer that includes a comprehensive guide with additional support to teachers who are integrating environmental studies into their curriculum.

The CD-ROM is available for the Macintosh and will be available in the Windows version. The suggested retail price for Earth Explorer is US$56. — Kennedy Maize

Apple Restrains Video For Win

NB — Apple Computer had been granted a temporary restraining order halting shipment of some files in Microsoft's Video for Windows developer kits. The suit is the result of Apple's contention that Microsoft is illegally using its Quicktime for Windows software in Video for Windows.

The order, according to Apple, applies only to the distribution of certain files through electronic bulletin boards or CD-ROM. The order does not restrict the activities of third party developers. The order came in US District Court of the Northern District of California in San Jose.

Apple alleges that Microsoft, Intel, and San Francisco Canyon Corp. illegally copied and distributed significant portions of the Quicktime software, and claims that the Quicktime technology boosts the performance of Microsoft's Video for Windows 1.1d program.

Microsoft Corp. has responded by announcing it will release a new version of Video for Windows that does not contain any of the code Microsoft alleges it licensed from Intel Corp. but Apple Computer alleges infringes on its copyright.

Microsoft said the new release of Video for Windows is designated version 1.1e, should be shipping now. The company said the temporary restraining order does not affect any of Microsoft's other products or any products developed by third parties. — Wendy Woods and Jim Mallory

Radius Prepares Mac Clones, More Apple Licensees

NB — Radius says it will begin shipping a high-end clone similar to a Power Mac 8100 by June or early summer. Meanwhile, Apple Computer says it has signed more operating system license agreements, but will not reveal the parties involved.

According to Radius, the new computers will be promoted primarily to customers of the company's color displays, boards, and other products. The price of the cloned computer, which is being manufactured by unnamed third parties, is said to be competitive with Apple's pricing of the 8100. Projected sales volume and revenues are not being released by Radius, although the company says the first clones will be fully configured for commercial use.

Pioneer is showing its first prototypes of a Mac clone at Macworld Japan, and the other known licensee, Power Computing, is planning to ship an entry-level Mac clone this April with prices 10-15 percent below the current price for comparable Apple Macs. For the time being, Pioneer says it intends to market its home entertainment model in Japan.

Apple announced signing agreements with additional companies, but said it will not disclose the names until the individual firms make their own announcement. — Patrick McKenna ❑

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book*review*

Witty Style Belies Deep Advice on WinWord

BY CHRIS METTEN

Title *The Underground Guide to Word For Windows. Slightly Askew Advice from a WinWord Wizard*
Author Woody Leonhard
From Addison Wesley 1994
Price $26.95

This unusual book is written in a witty and irreverent, off the wall style. Attempted wit in technical books is usually juvenile, but there are no silly cartoons here. The wit in this book is sophisticated, sometimes sarcastic, and is appropriate to explaining the topics. The author is clearly a WinWord (Word for Windows) expert who loves the software in spite of its bugs, of which it has no more than other large software offerings.

The book addresses three aspects of WinWord.

Explaining how this complex software works and how to take full advantage of its powerful, often underutilized, features;

Showing you how to customize (optimize) WinWord to make you more productive in using it; and

Documenting the bugs and how to work around them, sometimes with ingenious solutions.

The book points out that many of the powerful features of WinWord are woefully underused, because few people fully understand them. These include Styles "based on" Templates, and Fields. Other word processors just use macros to record keystrokes. WinWord can do that, but it also has WordBasic, an awesomely powerful programming language that enables you to write much more powerful macros. Leonhard shows you how and urges you to do so. WinWord macros enable you to override the way some program functions work and can even be used to fix some program bugs.

The bugs in Word can be classified as:

Nuisance bugs, such as inconsistencies or awkwardness in performing functions. One type of bug is bogus error messages, which describe a false reason for something happening or failing to happen!

Bugs that can hang the computer, and lose all changes since your last save, and

Bugs that can corrupt your data file.

In each case, there are suggestions for avoiding the situations that trigger the bugs, and/or solving the problems when they arise. Since the methodology of solving the bugs is explained, you can become better equipped to solve bugs you may encounter that are not even documented in the book. The book's two level index will help you find references to parts of the software that may be causing difficulty.

The advice in this book could save you hours of trying to figure out the working of some bugs and more hours trying to fix them. For instance, a problem could be caused by your video driver. Don't re-invent the wheel – Woody Leonhard and his expert colleagues have done it for you. Version 6.0 is only the third version of Word for Windows, but some bugs from Version 1 persist. Leonhard expects some of the bugs described to remain unfixed in the next version.

The Underground Guide to Word for Windows (TUGTWFW) is fun to read and contains a wealth of useful advice to help you get the most out of Word for Windows. This useful reference could even help you avoid using a function that might trash work you have spent hours writing and editing. Word versions 6.0 and 2.0 are covered. TUGTWFW is good value, and an essential reference to information you are not going to find elsewhere. I recommend it. ❑

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Chris J. Metten is a freelance technical writer. He can be reached at 604 325-9609

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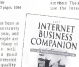
Internet Business Opportunities Explored

BY KEITH SCHENGILI ROBERTS

Title	*The Internet Business Companion Growing Your Business in the Electronic Age*
Author	Brent Heslop & David Angell
Publisher	Addison Wesley
Details	Softcover 242 pages 1994
Price	$25 95



The Internet has been in the press constantly over the past year, and more and more people are "surfing" the Net Many of these people are well educated have a good income and are interested in purchasing quality goods With this combination of consumer attributes it was only a matter of time before commerce appeared on the Internet. If you are interested in getting into the on line marketplace this straightforward pragmatic book is a good primer

Within the past few months more business sites have appeared on the Internet than any other type *The Internet Business Companion* takes a look at the competitive advantages and marketing opportunities from a corporate perspective The book provides a guide to the equipment methods tools and costs behind getting connected to the Net

The book tries to explain exactly what the Internet is and how it functions It also provides some guidelines on how to assess the needs of on-line consumers and the opportunities they present Much of the book is devoted to explaining how to get on line and what to expect once you are there The authors also explain how to use the Internet for other business purposes including research, internal communications product support catalog publishing and marketing

As with many books dealing with the Internet its subject matter is quickly being overtaken by events occurring in this rapidly evolving environment There is a chapter devoted to doing business on the World Wide Web (WWW) but it is not given any special emphasis over other Internet marketing tools such as e mail and electronic mailing lists The information is useful but is rapidly becoming dated as firms take the plunge and get onto the WWW and shape the way business is being done on the Net

Expect to see future books (some of which are beginning to appear on the shelves) devoting more space to doing business on the World Wide Web than this book does While the book also looks briefly at the non commercial origins of the Internet, Internet culture and where business can (and can t) fit in it does not go into enough detail to give most Internet beginners a sense of the on line culture emerging in the Internet a crucial factor for identifying markets

While the book s emphasis on the tools for getting onto the Internet, rather than the characteristics of the on line consumer arguably limits its appeal it is still a good start for people planning on joining the Internet marketplace This is one of the first books on the topic and as the pace of change quickens on the Internet you can expect much of what is discussed in the book to become dated However, we are still in a period where all entrepreneurs on the Net are pioneers and this book can be thought of as a rough road-map on how and where to set up shop on the Information Super highway ❑

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Questions from the PerfectOffice

BY GEOF WHEELWRIGHT

Even in a perfect world, things can sometimes go wrong. Evidence of this fact came in January when Novell's WordPerfect division started shipping its much-anticipated PerfectOffice suite in volume, only to find a small bug had crept into the final, shipped product that caused it to display an "Old Theta being updated" error message in certain instances.

As PerfectOffice users will know a fix for this bug was quickly made widely available and most users of the 100 000 or so copies that contained the bug have been able to get hold of the bug fix by now. But given the newness of PerfectOffice new PerfectOffice users and those considering PerfectOffice may still have many more questions about how best to use it. In order to give voice to what we believe are some of the key questions for these users, we devote this training column to answering them as comprehensively as we can.

Q. What are the recommended hardware requirements for running PerfectOffice?

A. It depends. Novell says that you can run it on anything from a PC with a modest Intel 386 processor, 16 MB of free hard disk space and an EGA display. When you read the fine print, however, Novell also recommends at least 8 MB of RAM, Windows 3.1 or better (which one usually doesn't run with an EGA display), and warns that "additional hard disk space is required to install optional applications, features, clip art or templates."

Additional hard disk space is also required if you want to fit in all of PerfectOffice. Considering that the fully installed Quattro Pro directory alone takes up some 16 MB, you will want to leave yourself at least 60 MB for a decent installation of PerfectOffice and more if you need room for bigger data files. And given that it's hard to justify spending lots of money to put 8 MB of RAM into anything less than a speedy 486, your old 386SX isn't likely to be fit to host PerfectOffice.

Q: Novell talks about PerfectOffice having an object-orientation. Does that make any difference to the way you use it?

A. Very definitely. In addition to full OLE 2.0 support on all PerfectOffice modules, they also contain right-click mouse functionality that lets you access the lists of actions and properties that apply to an object or screen element. This right mouse button access provides a simple way to use the object orientation throughout PerfectOffice.

It's also worth noting that PerfectOffice is

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the only suite to support OBEX (Object Exchange Technology something that was long championed by Qualtro Pro developers Borland), which allows users to publish and subscribe to live, "versioned" data directly from within a variety of PerfectOffice applications

A customer using WordPerfect for example can directly subscribe to Quattro Pro or Paradox data published by another user in any PerfectOffice workgroup Paradox and Quattro Pro users can also subscribe to WordPerfect documents from within their respective applications All data shared with OBEX is live so when a publisher changes the data the subscriber can automatically have access to the updated versions Subscribers can even keep multiple versions of data on hand in order to make comparisons chart trends or make references to the information at a later date

Q What's the best way to integrate PerfectOffice with existing Windows applications?

A Try using the version of PerfectOffice known as PerfectOffice Select Novell includes in it add on features such as PerfectLinks for Lotus 1 2 3 for MS Windows and Microsoft Excel for MS Windows These PerfectLinks let you "plug" competing applications into their PerfectOffice Select product mix

For example PerfectLinks would allow an organization standardized on WordPerfect to include Lotus 1 2 3 in their suite Lotus 1 2 3 could then be used with the PerfectOffice Select suite participating in some of the automated "QuickTasks" that ship with PerfectOffice So PerfectOffice Select would be a good solution for users who do not want to standardize all of their applications from a single vendor yet still want some measure of cross application integration.

Q. If I create a customized dictionary for use in the WordPerfect spell-checker can I use it elsewhere in PerfectOffice?

A The PerfectOffice speller thesaurus drawing module grammar checker and file manager are shared among applications In addition to consistency this is supposed to save system resources and memory It also means that any customizing you do to things like spelling dictionaries can be "carried" from one application to another

Q What's this Envoy thing included in PerfectOffice and how do I use it?

A Envoy is what Novell calls a "workgroup publishing tool for collaborative computing" It falls into a class of electronic publishing tools whose best-known product is Adobe Acrobat At its most basic, Envoy is something that acts as a printer driver for any Windows applications and lets you print the contents of any Windows document to an Envoy file Then equipped with an Envoy viewer (like the one that comes with PerfectOffice) you can view the contents of the document and annotate it without having to load up the application that created it

For people who work in environments where a wide variety of Windows applications are in use yet where people want to be able to view one another's work easily – Envoy could be a choice Envoy lets you electronically view annotate and distribute documents across a network while keeping the document's formatting, including use of color and graphics In doing so, however the compression technology in Envoy often reduces files to one-third their size, which conserves network resources as documents are distributed.

Q What's the difference between Microsoft's IntelliSense in Microsoft Office

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and Novell's so-called "PerfectSense" technology in PerfectOffice?

A. Both are largely the products of overhype by their respective publishers The basic differences, however are that PerfectSense claims to check not only spelling, but also the grammatical structure and the meaning and context of words

In as much as the AutoCorrect and AutoFormat features in Microsoft Office make use of structure and context this could be said to be a small difference But Novell claims that PerfectSense is "the first linguistic technology in the industry that understands the meaning of words and their different forms" The example the company likes to give is that if a user wants to replace the word "purchase" with the word "buy" throughout a document PerfectSense intelligently changes not only "purchase" to "buy" but also "purchasing" to "buying," and "purchased" to "bought" Novell further suggests that PerfectSense is especially beneficial with languages that have many irregular verb forms

It also includes something dubbed "Intelligent Sentence Rewriting," which is supposed to help users become better writers by automatically rewriting entire sentences correcting not only spelling errors but also grammatical errors This is done using Grammatik 6, a grammar checker that automatically tags what it thinks are grammatically incorrect sentences and offers users a selection of rewritten sentences.

Q If the PerfectOffice support for Novell environments (particularly NetWare) is supposed to be so good, can you use Novell AppWare Loadable Modules (ALMs) with PerfectOffice?

A. PerfectOffice Professional comes with Visual AppBuilder which enables custom application developers to build portable software applications by linking these software components called ALMs An ALM is composed of an object and its associated functions ALMs can range from simple graphic utilities spreadsheet modules, multimedia engines and structured query language (SQL) client-server connections to services provided by NetWare and other network platforms such as file print e-mail imaging telephony and directory services. The Visual AppBuilder that ships with PerfectOffice Professional includes a library of PerfectOffice ALMs

Novell's WordPerfect division is developing ALMs that access the functions of all PerfectOffice applications such as the WordPerfect text editor the Quattro Pro spreadsheet module and the WordPerfect Presentations bitmap editor WordPerfect is also developing a method for developers to use Visual AppBuilder to create custom tasks or applications that execute single- or cross-application scripts written with PerfectScript

Novell promises that users of the Visual AppBuilder will be able to build custom applications by combining different ALM icons For example a marketing department could build a multimedia presentation using sound video and imaging ALMs. This ability to customize could make Visual AppBuilder an appropriate tool for developing specific vertical applications.

Q Isn't there a simpler way to develop cross-platform applications in PerfectOffice?

A Yes it's called PerfectScript PerfectScript is claimed to be the first scripting language in a suite with a record feature and is supposed to give users an easy way to create their own macros or "scripts," across multiple applications PerfectScript is designed to be used to automate both simple and complex tasks across applications.

For example, you could create a custom script that generates a weekly sales report using data from both Quattro Pro and WordPerfect With its programming language, PerfectScript provides a potential development environment for programmers PerfectScript commands are divided into two categories product commands and programming commands Product commands are specific to an application, programming commands are shared among PerfectOffice applications so developers have fewer commands to learn

Users can also incorporate customized dialog boxes into scripts using the new Dialog Editor PerfectScript is a part of the common code shared by all PerfectOffice applications and third-party applications that use this code automatically have access to PerfectScript. ❑

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PCOT (PERSONAL COMPUTER CLUB OF TORONTO) — IBM and PC clone users, month 3rd Tues at 5111 Yonge St. North York at 7:00 pm. Membership includes shareware lib, BBS 12 special interest grps & workshops. Voice info line (416) 636-8671

Repetitive Strain Injury Support Grp meets the 2nd Thurs of every month. Help people who have the condition. We can help you with info prevention & coping with this work related injury. For info call 416-465-3641 or 416-252-6471 x238

TAF TORONTO ATARI FEDERATION XE/ST/Falcon computers 300 members BBS Newsletter SIGS for MIDI/DTP General & more. Meets 7:30pm 3rd Thurs of month in North York City Centre Library building 5120 Yonge St. at Park Home. BBS (416) 236-5316. Info-Line (416) 22-58-825 CALL TAF

THE CANADIAN AUTODESK MULTIMEDIA USER GRP Users of Autodesk Multimedia products call Pia Zimpel at (416) 529-0155.

THE CANADIAN INFORMATION PROCESSING SOCIETY For info call Rick/Pinton 518-1437

THE COMMUNICATION NETWORK Join our Social Network/Support Grp for SHY people & enhance your interpersonal skills. Participate in weekly organized social info cultural activities from 7 10pm. Pre-registration is required. Call for info @ 881-4686 or @ 1 2996.

THE DURHAM P.C. USERS CLUB Meetings on 2nd Thurs. of each month at 7:10 pm (free admission!) Held @ CAW Local 222 Hall, 1425 Philip Murray Ave. Oshawa. Contact Linda Nation 905-623-2797 or Bruce Layout 905-728-0911

THE ELITE GROUP OF 3-D PROGRAMMERS — (E.G.3D.P) In association with L.T.P.D. (Atari users). For info write to L.T.P.D. c/o (E.G.3D.P) 37 Mentye Ave. Unit #2, Toronto ON M6S 2G8.

THE INTERNATIONAL INTERACTIVE COMMUNICATION SOCIETY (IICS) a non-profit professional organization for the advancement of interactive & multimedia technologies. Monthly meetings newsletters & networking IICS members are able to keep up-to-date. Membership is $95/yr. For info call Peter Richardson 416-288-0568 or fax 383-4266

THE TORONTO COLOUR COMPUTER GROUP — month on the 2nd and 4th Mon of each month. For info call Larry Osborne at (416) 972-1109.

THE TORONTO GUPTA USERS GROUP (TGUG) Meetings in Feb, Apr, June, Sept, Nov each year. Call Tarry Lewis at 416-620-0585 3828 or 416-620-9913 (fax) for info Corp membership fee $50/yr / Single membership $25/yr

TORCH (Toronto Region Computer Human Interaction) — Meets every 2nd Wed of the month at 7:00 pm. For membership info call the local chapter of Sigchi a part of ACM. Call M. Beshes (416) 444-2897

TORONTO APL SIG — Educational info social organization concerned with the use and promotion of APL computer language 4th Monday of each month at 6:30 pm at BCE Place 161 Bay Street, 19th Floor. Or write Toronto APL SIG, Box 384, Adelaide Mississauga P.O. Toronto ON M5C 2J5 Call Ben Best (416) 362-3100

TORONTO BORLAND USER GROUP — month 1st (C/C++) 2nd (Paradox) info 3rd (Quattro Pro) Thurs of every month at 6 pm 5:30 pm and 7 pm respectively. Meetings held at Borland, 5001 Yonge St, 14th Floor. Membership info call David Krash 416-987 1066. Free BBS (905) 271-8796.

TPUG (TORONTO PET USERS GROUP INC.) — Commodore users. month Tues (1st, 128 2nd, Amiga 3rd, GEOS 4th, 64) York Public Library 1745 Eglinton Ave. W. 7:30 pm. 3rd Thurs Atherwood United Church 44 Delma Drive Etobicoke 7:30 pm, software library newsletter & BBS info (416) 253-9637

TRACE — Toronto Regional AutoCAD Exchange. Presentations on the last Tues of every 3rd month. At Nelson Community Ctrl, 3511 Morningstar Drive. For info call Tim Lunn (416) 750-9795

WORDPERFECT USER SUPPORT GROUP month held Thurs of every 2nd month. Call (416) 721-4290 or write WPSG P.O. Box 6593, Station A Toronto M5W 1X4 for info

Z88 USERS GROUP — Revival of the Toronto Z88 Users Grp. Emphasis on exchange of Z88 technical expertise in a friendly environment. Call Fay Raloff Phone (416) 975-8216, or Fax (416) 979-4884

TORONTO DELPHI/INTERBASE USERS GRP Meets at the First Canadian Place, on the 1st Thurs of every month at 3pm. For info call Nelson Schenk 416-5106

CALENDAR

MARCH

COST JUSTIFYING THE INTERNET SEMINAR March 28 1995 8:30am-noon. Days Inn 33 Carlton St. Toronto. For more information contact: B Tel S Communications at 416-925-2867

SALES & MARKETING ON THE INTERNET SEMINAR March 28 1995 1:00pm-4:30pm. Days Inn, 33 Carlton St., Toronto. For more information contact: B Tel S Communications at 416-925-2867

HOME OFFICE SHOW AND TELECOMMUTING EXPO March 28 & 30 1995 Metropolitan Convention Centre, Toronto For more information contact: 416-588-6141

MICRO EXPO 95 SPRING March 24 10:00am-9:00pm March 25-26 10:00am-6:00pm. Place Bonaventure East Hall Montreal. For more information contact: 514 844-6502

MULTIMEDIA INTERNATIONAL MARKET March 24 10:00am-8:00pm March 25-26, 10:00am-6:00pm. Place Bonaventure, East Hall, Montreal. For more information contact: 514-949-1812.

TORONTO USERS GROUP FOR MIDRANGE SYSTEMS March 21 4:00pm 1stPark Conference Centre (Markham Ltf. For reservations call Wanda Baddy at 905-607 2546 or fax at 905-607 2547

APRIL

CANADIAN INFORMATION PROCESSING SOCIETY April 26 1995 9:00am-3:00pm. Toronto Colony Hotel 89 Chestnut Street, Toronto. For more information contact: 416-593-4040

TECHNOLOGY FOR LAWYERS April 21 22 1995 For more information contact 416-947-3416

ENGINEER AS ENTREPRENEUR April 28 1995 Delta Meadowvale Conference Centre Mississauga. For more information contact 416-224-1160

MAY

MULTIMEDIA CONFERENCE & TRADE SHOW May 31 to June 3. At the Metro Convention Centre. For more information call 416-324-3233

COREL CONFERENCE & SHOWCASE June 1-2 1995 Ottawa For more information contact 1-800-996 2066

INTERNATIONAL

OBJECT WORLD BOSTON March 20-23 1995 Hynes Convention Center Boston, Mass. U.S.A. Contact: IDG World Expo at 800-225-4698.

PC WORLD EXPO/STOCKHOLM April 26-30 1995 The Stockholm International Fair Stockholm, Sweden. Contact: IDG World Expo at 800-545-3976.

COMDEX/Sucesu-Rio April 4-7, 1995 Rio de Janeiro. Contact: Interface Group 617 449-6600

EMAIL WORLD April 19-21 1995 Santa Clara, CA. Contact: Digital Consulting Inc 508-470-3880.

DB/EXPO 95 May 2-4 1995 San Francisco, CA. A database Client/Server and information technology exposition and conference. For more info contact: Lisa Houde @ Wenham-NDN 415-966-8440

COMPUTEX TAIPEI June 5-9 1995 Taipei World Trade Center. Fax 886-2 725 1314

PC EXPO June 20-22, 1995 New York. PC Expo will encompass the latest in computer hardware and software products including portable and pen-based computing, multimedia, client/server and networking technology. For more info contact Annie Scully (ext 145) 201-346-1400

what'snew

INTEL UNVEILS THE P6 • Intel recently unveiled details of the P6 at an engineering conference, a family of microprocessors slated to be the successor to the Pentium computer chip.

The first P6s will run at 133 MHz and use a power supply of 2.9 volts. The P6 chips will contain 5.5-million transistors compared to the approximately 3.1 million transistors contained within the Pentium microprocessor. The P6 family of microprocessors will be completely compatible with all PC software, and its performance will make it better suited to handle processor-intensive multimedia programs and for demanding server and workstation applications.

The main design innovation is a feature called "Dynamic Execution", which significantly speeds up the execution of software by using a combination of three data processing techniques. While running a program, the P6 uses a process called Multiple Branch prediction to determine which sets of instruction are likely to be processed next and then analyses the flow of data to create an optimized schedule for processing the instructions. Finally, using a process called Speculative Execution, the P6 carries out a program's instruction based on this schedule, optimizing the use of its processing power. As a result, more data can be processed in a given time period.

Intel plans on shipping the first P6 microprocessors sometime in the second half of 1995 — K.S-R.

Contact: Intel Corp. 1-800-538-3373

IPHONE BANNED! • A small Israeli company called VocalTec (www.vocaltec.com) has an amazing program for Windows called Internet Phone. It lets Windows users with audio in/out on their PCs make phone calls anywhere in the world for free... until early March, that is. The company sent e-mail to registered users of its $49.95 Iphone program, advising them that a number of IRC (Internet realtime chat) sites have banned the use of the Iphone program.

VocalTec says it can't understand why the IRC sites have banned their program. It claims that Iphone does not tax the bandwidth capacities of IRC sites, as some providers have apparently claimed.

The Iphone program permits voice communications over an infrastructure that was designed only for text-based communications. That might be making more than IRC service providers nervous. We wonder what the phone companies are making of this technology.

YORK GETS WIRED • As part of the Intercom Ontario Project, York University's Calumet College is getting wired as a beta test site, giving 500 residents access to wide range of network services over a fibre optics based infrastructure. Network services will be connected to a suburban housing development, universities, libraries, schools, companies, museums and galleries. The services offered are aimed at the needs of the average family. They include transactional services such as home banking, distance education, video conferencing, entertainment and leisure applications. The Intercom Ontario Project is based on the premise that if users are not exposed to the full potential of network technologies through a wide array of services, they may not perceive the value of the network and, in turn, may choose not to use it. Intercom Ontario will monitor user's actions, transactions and interactions to find out usage patterns and which services are the most valued.

Contact: Member & Communications Counsel 416-366 6880 — RC

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CLASSIFIED ADVERTISING IS FREE FOR PRIVATE INDIVIDUALS. For businesses, advertising rates are $7 per line (40 characters). Send in your ad, along with payment, for the May 1995 issue by Monday March 27 1995. Private Individuals: to qualify for a free ad, the ad must be for one-of-a-kind items for sale. Free ads qualify for one month in the local edition only. One ad per person only please. All other ads classify as business ads and are subject to the $7 per line charge. The Computer Paper reserves the right not to print submissions.

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CLASSIFIEDS

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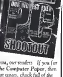

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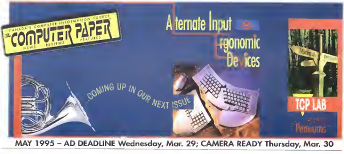
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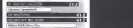

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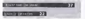

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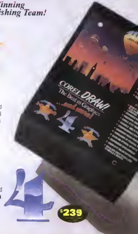

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